Functions of Inflectional Morphemes in English and Pashto Languages

Shaukat Khan

Lecturer, English Language Institute, Faculty of Social Sciences, Umm Al-Qura University, Makkah, Saudi Arabia

Wasim Akram

National University of Modern Languages (NUML), Peshawar Campus

Ajmal Khan *

Assistant Professor, English Language Institute, Faculty of Social Sciences, Umm Al-Qura University, Makkah, Saudi Arabia

Abstract

Every language is peculiar in terms of its morphological system, yet the languages descended from the same language family are also thought to have similar morphological forms and functions. English and Pashto are the descendants of the same language family, known as the Indo-European. These two languages demonstrate significant resemblance in the functions of inflectional morphemes. While English has a limited inflectional morphology, Pashto has a richer morphological system. Comparative linguists suggest that the two languages owe this resemblance to the influence of Greek, their parent or proto-language. This study takes an in-depth view of similarities and differences in the functions of English and Pashto inflectional morphemes.

**Keywords:** Pashto, English, Inflectional Morphemes

INTRODUCTION

This study is primarily concerned with morphology, a branch of modern linguistics and an essential part of grammar. Morphology, according to Yule (1996), is the study of investigating forms in language rather than depending on identifying words. Morphology plays an important role in the construction of linguistic units and structures. It is morphology which allows the language to adopt new words from existing words (derivational morphology) or to change the grammatical aspect of a word according to its use in a specific context (inflectional morphology).

Every language is atypical in terms of its morphological system which accounts for enormous variation in its structural patterns. In this respect, the famous nineteenth century scholar Von Humboldt has categorized all the current languages spoken in the

---

world into three distinct categories: "isolating" "agglutinative" and "inflectional" (Palmer, 1984). According to Humboldt's categorization, Chinese is a perfect example of isolating language, for it has no morphology. An agglutinative language is one in which all the linguistic elements occur separately in a syntactic structure (sentence) as in Swahili, where words have no paradigms at all. As for inflectional languages, the grammatical elements are joined together and cannot be separated in the actual use of the language as in Greek and Latin (Palmer, 1986).

In order to better understand the phenomena under study, it is worthwhile to give a brief introduction to the main branches of morphology. Morphology is divided into two main branches namely derivational morphology and inflectional morphology. Both types are characterized by their distinctive features. The function of derivational morphology is to make new words in language from already existing words with the help of derivational morphemes. Thus, *teacher* is made by the addition of '*er*' with the base form '*teach*'. Other examples are *judge/judgment, listen/listener, view/review* etc. On the other hand, inflectional morphology has no concern with the formation of new words or lexemes; rather its function is to show the grammatical feature(s) of the word and to make a specific word in agreement with the other linguistics units in the sentence. The present study is only related to inflectional morphology, so there is no need to discuss derivational morphology further.

The study of morphology contains a thorough examination of several bits of language that combine to make a single linguistic unit, known as the 'word'. Linguistically these bits are called morphemes. A morpheme is a minimal unit of meaning or grammatical function. There are two sub-categories of morphemes, namely free and bound morphemes. Free morphemes can stand by themselves in isolation, e.g. *boy, cat, dog* etc., while bound morphemes are always attached to free morphemes and never occur in isolation, e.g. -*ness* in madness. The former contains lexical morphemes that have a dictionary meaning (like *wall, book, fan*, etc.) and functional morphemes that have grammatical functions to fulfill (like *a, an, the* etc.). The latter contains derivational morphemes and inflectional morphemes. The main difference between the two is that derivational morphemes produce new words in language by changing their word class, e.g. *teach—teach-er*, while inflectional morphemes indicate aspects of grammatical function of a word and never change its grammatical category e.g. *boy—boy-s.*
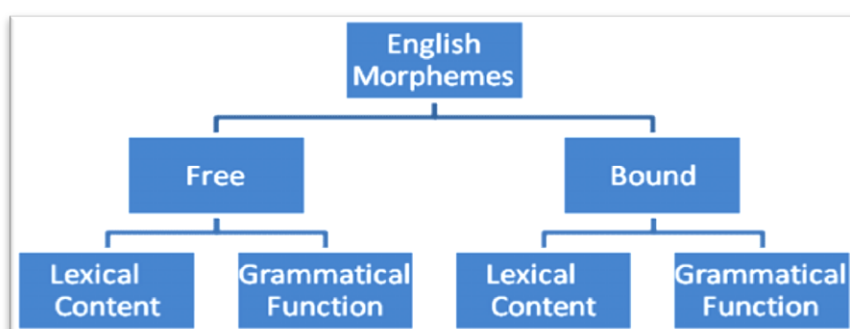
Figure 1: The structure of English Morphemes

The languages to be studied in this research are derived from the Indo-European family of languages, the collection of many ancient languages which are considered to be descended from the ancient Greek (Joseph, 2005). The historical linguists suggest that the native people of this language family were the inhabitants of the same region and had gradually scattered over the world from time to time, which resulted in a huge change in the form of their languages. Thus, Indo-European family is divided into eleven groups, and then each group is divided into sub-groups according to their geographical position in which every group contains several languages (McWhorter, 2004). As far as this study is concerned only two groups, i.e. Germanic and Iranian are of vital importance to the researchers. Historical philologists contend English and Pashto[1] are descendant languages of west-Germanic and Indo-Iranian subgroups respectively (Momma, 2008; Baugh, 1978, p. 22.). It is for this reason that a comparative analysis of the inflectional morphology of both the languages may be considered worthwhile the discipline of comparative philology.

Furthermore, the comparative linguists suggest that these languages have been deeply influenced by their parent or proto-language. As Joseph (2005, p. 1) notes:

> A stunning result of linguistic research in the 19th century was the recognition that some languages show correspondences of form that cannot be due to chance convergences, to borrowing among the languages involved, or to universal characteristics of human language, and that such correspondences therefore can only be the result of the languages in question having sprung from a common source language in the past.

Although the pro-language is still a matter of dispute among the philologists, most of them suggest the ancient Greek to be the proto-language of Indo-European family because there are similarities in structure, sounds and lexicon of these languages with the manuscripts found in the ancient Greek language. Accordingly, one can also expect similarities in the form and function of inflectional morphology in the languages of the same family. Thus the current study is an attempt to put up a comparative analysis between the two languages, English and Pashto, on the basis of their inflectional morphemes.

SIGNIFICANCE OF THE STUDY

The study attempts to contribute to the existing body of knowledge in the area of inflectional morphology of English and Pashto. A comparative study of the inflectional morphemes aims to identify the areas where the two languages are similar or different from one another. This knowledge can help the new L2 learners (second language learners), either of English or Pashto language, in coping with the challenges in learning a new and morphologically distinct language. Besides, this study is an endeavor to establish a relation between the members of West-Germanic and Indo-Iranian group of

---

[1] Pashto is the language of Pashtuns, the people who inhabit the north-western parts of Pakistan and the adjacent south-eastern parts of Afghanistan.

languages, English and Pashto respectively. Apart from that, the study may also serve as a guideline for the forthcoming researchers who are interested to conduct research in the same area.

A review of literature suggests that a great deal of scholarly attention has been paid to the inflectional morphology of English and Pashto. Nevertheless, there is a dearth of research on the comparison and contrast of functions of inflectional morphemes of the two languages. Consequently, this study intends to compare and contrast the two languages in terms of inflectional morphemes.

The inflectional morphemes perform their functions in various parts of speech but the scope of this study is limited only to the noun of the respective languages. The researchers aim to explore those areas in the morphology of both the languages where the inflectional morphemes function similarly. In addition, the discrepancy between the inflectional morphology of English and Pashto is also explored. Moreover, the study aims to pinpoint the morphological characteristics of both the languages and attempts to identify the probable causes behind their peculiar dissimilarities.

The main limitation of this study is the universal principle of language variation over the course of time, which makes the previous studies and versions inapplicable to the current status of languages under focus. Thus, this study only deals with the present form of English and Pashto languages rather than old English or the ancient form of Pashto.

Moreover, the researchers' aim is to describe and explain the inflectional morphemes only from the Standard English (SE) Received Pronunciation (RP) and Yousafzai[2] dialect of Pashto language. The remaining dialects of both languages may have different morphology than the standard dialects, which has no concern with the present study; the point has to be borne in mind before generalization.

REVIEW OF RELEVANT LITERATURE

The review of related literature aims to offer a theoretical background for the present study and contains information about the origins of the languages in question, morphology and its major types, morphological features of English and Pashto language, morphemes and its types, and other information related to the topic in some meaningful way.

A significant body of research about the origin of English and Pashto languages exists in the field of historical linguistics. Historical linguists group languages that are considered the offspring of a single parent or protolanguage as a language family (Joseph, 2005). According to Joseph (2005) "one of the earliest language families to be recognized, and thus the most thoroughly investigated of all to date, is the one that Greek belongs to, the

---

[2]MacKenzie (1959, as cited in Hallberg, 1992) distinguishes four dialect areas of Pashto based on five different phonemes: South-west (Kandahar), South-east (Quetta), North-west (Central Ghazali), and North-west (Yousafzai).

one known as the Indo-European language family". In this regard Baugh (1978) examines English as one of the members of west-Germanic group, descended from the Indo-European family of languages. He maintains that "the West-Germanic is of chief interest to us as the group to which English belongs" (Baugh, 1978, p. 31). Pashto is also genetically related to the same language family, but is a member of the Iranian subgroup. Its major neighboring languages include Persian, Kurdish, Tajik, Balochi and Ossetian, all of which are spoken in the vicinity of Afghanistan (Tagey & Robson, 1996). This account of the origin of these languages is also supported by the "Grimm's law of phonetic modification" on the basis of their phonetic similarities and systematic differences. In their reconstruction of ancestral Indo-European language, the early linguists, according to Gamkrelidze and Ivanow (1990), relied on Grimm's Law of Lautverschiebung (sound shift), which postulated that sets of consonants displace one another over time in predictable and regular fashion.

The Protolanguage of the Indo-European family, Greek is a "highly inflectional language in which the grammatical aspects cannot be separated" (Palmer, 1984, p. 51). Palmer (1984) provides a detailed account of the characteristic features of inflectional morphology in Greek language, and finds that it functions in the categories of number, person, tense, case and gender. Further, he briefly compares English inflectional morphology with that of Greek in order to trace similarities and differences between them.

Many theories of inflectional morphology have recently been proposed which account for the essential functions of inflectional morphemes in language. According to Stump's (2001) paradigm theory, in any language, each inflected form of word caries certain morpho-syntactic properties in order to employ the agreement between that particular inflected form and the rest of linguistic units in a sentence. In this regard, two major theories are considered to be of vital importance in the study of inflectional morphology: "lexical theory" and "inferential-realizational theory" (Toivonen, 2003). In lexical theory, the morpho-syntactic properties and their association with morphemes are designed in the mental lexicon, e.g. in English, -*s* has given a lexical entry which denotes its relation with the morpho-syntactic properties of present tense third person singular agreement and indicative mood (Stump, 2001). On the other hand, the inferential theory tends to reject this concept and constitutes a systematic relation between the lexeme's root and its inflectional marker (morpheme) for carrying out certain morphosyntactic properties according to fixed rules and formulas (Toivonen, 2003).

Stephany (1997) describes Greek as a morphologically rich language having no default forms of the words. The forms in Greek language never occur in isolation for grammatical functions; rather various grammatical features are compounded in a single form of word. Moreover, Greek Language has gender distinction in noun and is inflected according to number and case: "Verbs are inflected with respect to person, tense, aspect and voice" (Stephany, 1997).

Valeika and Buitkiene (2003) find that the influence of Greek and Latin can still be found on the inflectional morphology of English. Many words borrowed from Greek and Latin still preserve the original inflected forms as they were used in the proto-language, e.g. *memorandum-memoranda*, *criterion-criteria*, *vertebra-vertebrae*, *vortex-vortices*, *index-indices*. However, these words are sometimes used according to the morphological rules of English inflectional morphology so we have the resultant forms *memorandums, criterions, vertebras, indexes*. Valeika and Buitkiene (2003, p. 49) note that there is an "increasing tendency for regular –s plurals to alternate with classical plurals".

The gradual development of English language can roughly be divided into three historical periods in terms of inflections. According to Baugh (1978, pp. 51-52) "the period from 450-1150 A.D is known as Old English. It is sometimes described as the period of full inflections, since during most of this period the endings of the noun, the adjective, and the verb are preserved more or less unimpaired". Baugh (1978) further describes Middle English and Modern English as the periods of "leveled inflection" and "lost inflection" respectively.

One important feature of inflectional morphology is its dominant function in the gender system of language. Several linguists have attempted to discover the gender system of Indo-European languages in order to delineate how the two types of gender, i.e. grammatical and biological genders are expressed in the language (Corbett, 1991; Hidalgo, 2000). Gender is considered to be somehow unpredictable; it is not a universal feature of language because some languages (for instance *Chinese*) do not have gender system at all and others (like Persian) have lost it (Fernández, 2008). Fernandez (2008) argues that grammatical gender is quite common in Indo-European languages including its proto-language Greek, Latin, French, German, Spanish and the languages of Iranian group. Two basic kinds of information in a language determines the gender of nouns, pronouns or adjectives: (1) the lexical meaning of that particular word (that gender is employed semantically), and (2) the form of word, which involves the sound-structure of that particular word (e.g. the last phoneme of the word) (Lass, 2006; Hellinger, 2001; Freeborn, 1998; Corbett, 1991).

Veleika (2003) observes that old English gender was grammatical in the sense that all the nouns were divided by the grammar, in terms of their morphological structure, into three different classes, i.e. masculine *stan* (stone), feminine *duru* (door) and neuter *reced* (house). In other words, formal, or grammatical, gender disappeared with the loss of inflections (Veleika, 2003).

Fernandez (2008) provides a detailed diachronic review of the gradual evolution of gender in English language. He describes Old English (OE) as synthetic while Middle and Modern English as analytic language. The end of the OE period and the beginning of ME, according to him, coincide with a turning point in the transition of English from a synthetic to an analytical language, namely the substitution of an analytical grammar for the collapsing inflectional system of OE. This decline in the inflectional morphemes of

English is largely responsible for its transformation from grammatical to biological gender (Fernandez, 2008; Veilika, 2003).

Inflectional morphology also performs a significant role in the case system of Indo-European languages, particularly Greek and Latin (Valeika & Buitkiene, 2003, p. 49). According to Valeika and Buitkiene (2003) case is the marker of syntactic relation between the noun and the rest of the linguistic unit in a given sentence. As Valeika and Buitkiene (2003) state: "The syntactic case concept dates back to the grammars of Ancient Greece and Ancient Rome. It is a case whose main role is to indicate a relationship between constituent". Thus genitive case marks one noun to be dependent on another with the help of an inflectional morpheme (-'s) as in *"John's car".* Greek and Latin languages are richer than English in the number and functions of case marking inflections. There is an inexorable controversy on the existence of case system in English language and some descriptive linguists altogether deny the category of case in modern English (Ilyish, 1971, p. 47; Vorontsova, 1960. p, 180).

English inflectional morphology, according to Karaminis and Thomas (2010), is characterized by its simplicity, manifested by the extensive use of default (base or uninflected) forms. In English language, inflection affects noun, pronoun, adjective, verb and a few adverbs (McCarthy, 2002). The inflectional morphemes are alike for all words but there are also some irregular morphemes like (take/took) that produce complexities for non-native learners of the language; as such these forms must be listed in the dictionary (McCarthy, 2002). For this reason, English morphological paradigms are called quasi-regular as opposed to regular or irregular (Karaminis & Thomas, 2010).

The study of morphology also involves many morphological processes in the formation of linguistic structures. English inflectional morphology constitutes regular as well as irregular morphological rules. In this respect, Hockett (1958) suggests two distinct approaches to the study of morphology: the IP (item and process) and IA (item and arrangement). According to him, phonological alternation", "suppletion", "zero morph", "empty morph", "substitution" "portmanteau morph" and "subtraction process" are the morphological processes, which are employed in the formation and modification of linguistic structures (Hockett, 1958).

Pashto is a morphologically rich language (Zuhra, 2009). It has been considered as the most conservative language among the members of its family, for it has retained the archaic features which the other languages have lost in the course of their development (Tagey & Robson, 1996). Khattak (1988) identifies various features for which the Pashto verb inflects e.g. tense, aspect mood and voice. Many Pashto grammarian and linguists have categorized Pashto nouns into masculine and feminine on the basis of their final phonemes (Penzl, 1955; Zyar, 2003; Reshteen, 1994). Pashto language has many inflectional features in noun, but verb and adjective but unfortunately its study has been neglected in the field of Pashto linguistics. In this regard Tagey and Robson (1996) observe that "Pashto grammatical studies are in their infancy, and such simple matters as the number of noun-classes or names of the tenses are by no means definitely agreed on, as they are for languages that have been studied for a long time".

Like Pashto, other Indo-Iranian languages also share the same characteristics in their inflectional morphology. As described by Tahir and Hashem (2010), Persian, one of the descendants of Indo-European languages and a relatively similar language to Pashto, has also a rich inflectional morphology. According to Tahir and Hashem (2010) Persian is a highly inflective language in which a great number of different word-forms are created by the attachments of affixes. The Persian verb inflects for number, person and mood. In Persian language, some words can have up-to 450 different forms, having different inflectional morphemes. However, some of these forms do not occur in the normal usage of the language (Tahir & Hashem, 2010).

A review of literature suggests that a great deal of scholarly attention has been paid to the inflectional morphology of English and Pashto. Nevertheless, there is a dearth of research on the comparison and contrast of functions of inflectional morphemes of the two languages. Consequently, this study intends to compare and contrast the two languages in terms of inflectional morphemes.

METHODOLOGY

This study follows the qualitative approach to investigation. The nature of this study is library research in which the researchers read library books written in the target languages and review previous studies conducted on aspects of languages that this study investigates. Data comprises the language segments English and Pashto which contain inflectional morphemes. Moreover, the employment of personal observation for data collection is also considered preferable and useful due the researchers' extensive exposure to Pashto as their mother tongue, and English as the language of their profession, i.e. as teachers of Linguistics and English as a foreign language. Furthermore, due to the particular focus of this study on inflectional morphemes, the conventional techniques of data collection such as questionnaires, tests (written or oral), visual recordings and interviews are inapplicable to the present study. The researchers select syntactic structures and relevant linguistic items from both the languages and compare them in order to identify the functions of inflectional morphemes in their actual use. This data is further authenticated and corroborated by the researchers personal observations and knowledge of the two languages.

Following Dornyei (2014), the study takes a descriptive approach to analysis. It analyses thorough understanding and observation of different types of noun, verb and adjective in English and Pashto and their comparison in terms of inflectional morphemes. Besides, the peculiar characteristics of inflectional morphology of these languages and the influence of the Proto-language on them are explicitly described with the help of relevant examples. Each function is explained through sufficient number of examples.

REPRESENTATION OF DATA

Data is represented through the amalgamation of two techniques, i.e. linear tables and theoretical discussion. The tables contain relevant examples of inflectional morphemes

from English and Pashto. Each table exemplifies a single function of inflectional morphemes in a particular part of speech in both the languages (like function of number in noun). The examples given in the table are further explained through analytical discussion. Each function of inflection in a particular word-class is satisfactorily discussed from various viewpoints, in order to pinpoint the resemblance and variation in inflectional morphology of English and Pashto. Inflectional Morphemes and their types in the target languages are discussed according to the following scheme.

- General features of Inflectional Morphology
- Inflectional morphology is bound
- Inflectional morphology is closed-class
- Inflectional morphology is general
- The functions of inflectional morphemes in English and Pashto Noun
- Inflections in common regular nouns in English
- Inflections in common regular nouns in Pashto
- Inflections in Common irregular nouns in English
- Inflections in common irregular nouns in Pashto
- Inflections in proper noun in English and Pashto
- The Influence of Classical Greek on English and Pashto Inflectional Morphology

General features of Inflectional Morphology

Inflectional morphology highlights the associations between languages' structure, and their grammatical and semantic functions in a unique way and therefore is never autonomous. Inflectional morphology is connected to language system from two different dimensions, namely: form and meaning; the role it plays is a crucial one and worthy of observation. Thus inflectional morphology is peculiar in terms of its unique characteristics, i.e. it is typically *bound*, *closed class* and *genera* (Janda, 1984). These characteristics exclusively pertain to the nature of inflectional morphology in general. Like almost every language English and Pashto also possess the same morphological features. For instance, English and Pashto mark their nouns in the category of number, case and gender. The inflectional morphemes of Pashto and English language are typically bound. Thus, the inflectional morphemes '*s*' and '*una*' cannot be separately used as meaningful units in isolation. These morphemes are always attached to the nouns for marking plurality. In order to have a thorough examination of inflectional morphology, each characteristic is sufficiently discussed below.

Inflectional morphology is bound

Table 1: Inflectional Morphemes in English and Pashto

Inflectional Morphemes In English			Inflectional Morphemes in Pashto		
Base-word	*Inflected word form*	*Inflection*	*Base-word*	*Inflected word form*	*Inflection*
Singular	Plural		Singular	Plural	
Book	Books	-s	Kitab	Kitabuna	-una
Boy	Boys	-s	Halak	Halakan	-an
Man	Men	a→e	Saray	Sari	a→i

In the above table, it is notable that the inflectional morphemes cannot stand by themselves. Inflectional morphemes are associated with nouns, adjectives and verbs of English and Pashto. As clear from the given examples, inflectional morphemes are bound and never act as autonomous units in a morphological structure. A bound morpheme is one which is always attached to another lexical morpheme and never occurs in isolation in the actual usage of language. The function of a bound morpheme is to make grammatical relations among the different linguistic units. The boundness of inflectional morphemes often causes difficulty to denote the exact boundary of a lexical morpheme. In this regard, the last examples of the table from both the languages are somehow problematic. The word '*men*' has an inflectional morpheme (a→e) which denotes its difference from the base word '*man*' but it is quite hard to separate the exact inflection from the inflected form of the word. In both the examples, i.e. '*men*' and '*sari*', the elimination of inflections would give the forms other than the actual lexemes of the two words, i.e. '*man*' and '*saray*' respectively.

Inflectional morphology is closed-class

Unlike the lexical and derivational morphology, inflectional morphology is *closed class* which has no flexibility. In other words lexical and derivational morphology do allow new morphemes to enter into their domain but inflectional morphology is extremely resistant to accommodate new forms in its existing domain. Inflectional morphemes are pre-established for each and every language and the possibility of borrowing new inflectional morphemes in a language is improbable to account for. Nonetheless, the inflectional morphemes of a language may be extremely limited like English or quite widespread like Pashto but the forms are always pre-established according to the morphological rules of the respective language.

Table 2: Inflectional Morphemes in regular nouns in English and Pashto

English			Pashto		
Base form	Inflected form	Inflection for number	Base form	Inflected form	Inflection for number
Flower	Flowers	-s	Gul	Guluna	-una
Child	children	-ren	Bachay	Bachi	ay→i
Man	Men	a→e	Buda	Budagan	-gan
Sheep	Sheep	Zero morph	Almarayi	Almarayi	Zero morph

Table 2 shows that English language marks its regular nouns by the inflectional morpheme *–s,* and that some irregular inflections are used in a limited range of words. One finds four different inflectional morphemes which are used for marking plurality. These inflectional morphemes are pre-established for nouns and cannot be replaced by any other morpheme. Thus one cannot pluralize the word '*child*' by adding '*s*' as an inflectional morpheme to form **childs* (the asterisk denotes incorrect form). On the other hand, Pashto inflectional morphology uses a range of inflectional morphemes according to the phonological structure of the word. Thus the words ending with |*l*| and |*ae*| sounds are always inflected with the form '*una*' and '*ae→i*' respectively. This argument is supported by the first two examples of the above table where '*gul*' changes

to '*guluna*' and '*bachay*' is changed to '*bachi*'. So, one cannot pluralize the lexeme '*bachay*' by adding '*una*' to form **bachiuna*. Similarly all the inflectional morphemes are pre-established according to the final phoneme of the basic form and are closed-class.

Inflectional morphology is general

An inflectional morpheme is generalized to a particular paradigm, either on the basis of its grammatical category or morphological structure which has to occur with all the different words of the same paradigm. For instance, English morphology generalizes the inflectional morphemes to a paradigm of nouns on the basis of its grammatical category, number, i.e. all the plural nouns must have the addition of –s as an inflectional morpheme (although exception are there as change in vowel like *man/men, thesis/theses* etc.). In contrast, Pashto morphology generalizes its inflections according to the phonological form of word-paradigm; the last phoneme of the base form determines its inflectional morpheme. Thus the nouns ending with |b| like *kitab, rabab and merab* are inflected by the inflectional morpheme '*-una*' as in *kitabuna, rababuna* and *merabuna*. In all these examples, the inflectional morphemes mark the nouns for plurality. The forms are generalized to all the nouns having similar morphological structure. Further examples are given in the Table 3 below.

Table 3: Generalization of inflectional morphemes in English and Pashto

Generalization of inflectional morphemes in English language		
Base-form	Inflected form	Inflectional morpheme
Book	Books	-s
Boy	Boys	-s
Fan	Fans	-s
Generalization of inflectional morphemes in Pashto language		
Kitab/merab/rabab	Kitabuna/merabuna/rababuna	-una
Halak/maalik/mangak	Halakan/malikan/mangakan	-an
Panka/kuza/jranda	Pankey/kuzey/jrandey	-ey

In the above examples one finds two ways of generalization of inflectional morphemes, i.e. according to grammatical category only (number) and according to form along with grammatical category (number + agreement with last phoneme), in the two languages respectively.

The functions of inflectional morphemes in English and Pashto Noun

English language has very limited inflections in noun and their functions are much more restricted as compared to Pashto language. There are two inflectional morphemes, i.e. –*s* and -*'s* which perform their functions in the category of number and case-system respectively. It marks nouns for *plurality* and changes the nouns from nominative to *genitive (possessive) case*. Table 4 below shows the functions of inflectional morphemes in English.

Table 4: The functions of inflectional morphemes in English

Singular form	Plural form	Possessive form	Inflection for number	Inflection for possession
Door	doors	Door's	-s	-'s
Man	Men	Men's	a→e	-'s
Sheep	sheep	Sheep's	Zero morph |Ø|	-'s
Analysis	Analyses	Analyses'	i→e	-'
Milk	(nil)	Milk's	(nil)	-'s
London	(nil)	London's	(nil)	-'s
Pain	Pains	Pains'	-s	-'

On the other hand, the inflectional morphemes have a greater role in Pashto nouns. Like English, it functions in the category of number as marking plurality, but unlike English it discriminates between the gender (masculine/feminine) and marks nouns in oblique case. A noun is said to be in oblique case when it is used as the object of preposition. Thus, the inflectional morphemes perform three functions in the noun-class of Pashto language, i.e. distinction in *number*, *gender* and *case.* Table 5 below shows the functions of inflectional morphemes in Pashto noun.

Table 5: The functions of inflectional morphemes in Pashto

Function in number category		Function in gender category			Function in case category		
Singular	Plural	Masculine	Feminine		Direct case		Oblique case
			Sing	Plural	Masculine	Feminine	
Sahib	Sahiban	Sahib	Sahiba	sahibaney	sahiba	Sahibey	Sahibano
Shagird	Shagirdan	Shagird	Shagirda	Shagirdaney	shagirda	sahagirdey	Shagirdano
Malgaray	Malgari	malgaray	Malgari	malgare	malgaraya	Malgare	Malgaro
Mama	Mamagan	Mama	Mami	mamigane	mama	/ mami	Mamagano /mamigano
Nika	Nikuna	Nika	Niya	Niyagane	nika	niya	Nikuno /niyagano

In the above two tables, the functions of inflectional morphemes in different types of noun are illustrated in the two languages. Let us now separately analyze these functions in different kinds of noun in English and Pashto.

Inflections in common regular-nouns in English

Table 6: The functions of inflectional morphemes in different kinds of noun in English

Singular	Plural	Possessive	Inflection for number	Inflection for possession
Maid	Maids	Maid's	-s	-'s
Boy	Boys	Boy's	-s	-'s
Teacher	Teachers	Teacher's	-s	-'s
Boss	Bosses	Boss'	-s	-'
Watch	Watches	Watch's	-es	-'s

In the common nouns of English, the matter of inflectional morpheme is very easy to analyze because it has only two functions which are already mentioned above. The one

variation in the possessive form of example #4 is because of the interference of phonology. Here the last phoneme |s| determines the inflection as English phonology does not allow "s's" structure. The same argument goes for the next example "*watch*" where |e| is placed between *ch* and *s*.

Inflections in common regular nouns in Pashto

Pashto inflectional morphology has three functions in common noun. It marks the common nouns for number, gender and case. An important point is that the distinction between masculine and feminine is purely constituted by the phonology of the language. Every inflectional morpheme is assigned to the common noun on the basis of its last phoneme.

Table 7: Inflectional Morphology of Pashto Common-noun

Masculine noun		Feminine noun		Direct case masculine		direct case feminine	
Singular	Plural	Singular	Plural	Singular	Plural	Singular	Plural
Saray	Sari	Khaza	Khazey	Sariya	Saro	Khazey	Khazo
Mama	Mamagan	Mami	Mimigane	Mama	Mamagano	Mami	Mamigano
Shagird	Shagirdan	Sahagirda	Shagirdane	Shagirda	Shagirdano	Shagirde	Shagirdano
Ustaz	Ustazan	Ustaza	Ustazane	Ustaza	Ustazano	Ustaza	Ustazano

Oblique case Masculine		Oblique case feminine	
Singular	Plural	Singular	Pular
Sari	Saro	Khazey	Khazo
Mama	Mamagano	Mami	Mamigano
Shagird	Shagirdano	Shagirde	Shagirdano
Ustaz	Ustazano	Ustazey	Ustazano

Table 7 clearly indicates that the inflectional morphology of Pashto common-noun is broader and more complex than that of English. The main difference between the two is that Pashto inflectional morphemes involve more functions than English. English language inflects its nouns only for denoting plurality and possession with the addition of [-*s*]and [-*'s*] respectively. On the other hand, Pashto language inflects its nouns for number (singular/plural), gender (masculine/feminine), and case (direct/oblique). Moreover Pashto uses a range of different inflectional morphemes in agreement with the last phoneme of the noun. Accordingly it is more complex because it encompasses the interference of phonology in morphological constructions. Thus the third example of the above table appears in five different forms with appropriate inflectional morphemes such as *shagird, shagidan, shagirda, shagirdaney, shagirdano*. Table 7 shows that although the functions of the inflections are the same in each word, the resultant forms are nevertheless identical.

Inflections in Common irregular nouns in English

Irregular nouns in Table 8 below and other such irregular examples create a serious problem in morphological analysis as they are not easily analyzable through a fix pattern of rules. In the example of man/men; the intermediate vowel |ae| is replaced by |e| which makes the plural form of the basic word. This process is called *suppletion*. The

second example does not account for any change in the basic form and is used for singular as well as plural form. It is said to involve *zero-morph*. The third example is a bit regular in its own place for English has other forms of the same pattern which involves the same morphological process, e.g. *analysis/analyses* and *thesis/theses*. The fourth and fifth examples (*child/ children , person/ people*) are extremely irregular and no logical explanation would work to establish a rule for their inflectional morphemes. They are peculiar in their own morphological construction as they have no other counterparts in English language. Moreover, the third example in the above table has no possessive form. The reason is that there is an ongoing controversy between the grammarians on the usage of possessive markers with inanimate nouns. Most of them agree with the idea that an inanimate object cannot be said to have any possession. They argue that possession is the property which only belongs to animate creatures like humans and animals. Thus one cannot, for instance, say that *a house's roof* or *a bike's tyre;* rather a preposition should be used for expressing the relation between the two nouns such as "*roof of the house"* and "*tyre of the bike"*.

Table 8: Inflections in Common irregular nouns in English

Singular	Plural	Possessive	Inflection for number	Inflection for possession
Man	Men	Man's	a→e	-'s
Sheep	Sheep	Sheep's	Zero morph |Ø|	-'s
Hypothesis	Hypotheses	----------	i→e	---
Child	Children	Child's	-ren	-'s
Person	people	People's	Change in root	-'s

Inflections in common irregular nouns in Pashto

Pashto comprises many irregular nouns in kinship terminology. Nearly all the direct and oblique plural forms of kinship nouns are irregular in their construction. Nonetheless, the functions of inflectional morphemes are the same in all these irregular nouns as that of regular ones (See Table 9 below).

Table 9: Inflections in common irregular nouns in Pashto

Basic noun	Direct singular	Direct plural	Oblique singular	Oblique plural
Mor (mother)	Mor / morey	Myande/moryaney	Mor	Myando/ moryano
Lur (daughter)	Lur / lurey	Lunra/ luryaney	Lur	Lunro/ luryano
Wror (brother)	Wror/ wrora	Wrunra/ wroryan	Wror	Wrunro/wroryano
Tra (uncle)	Tra	Truna/ tragan	Tra	Truno
Wrara(nephew)	Wrara	Wreruna	Wrara	Wreruno

Pashto has a large number of irregular inflectional morphemes which mark the nouns for number and case. It is easy to infer from the above two tables that irregularity in English nouns is not consistent and logical because one cannot go deep to the underlying principles of these irregularities. On the other hand, Pashto may have extensive irregular inflections but it is because of the morphology-phonology interaction of the language. Thus, irregular inflectional forms in Pashto language are

carried out by certain morpho-phonological rules of the language while irregularity in English is somehow arbitrary.

Inflections in proper noun in English and Pashto

The function of inflectional morphology becomes limited in proper nouns in English as well as in Pashto. English and Pashto do not inflect proper nouns in the category of number; rather proper nouns cannot be pluralized in the language at all. Thus in the proper nouns of English, the sole function which an inflectional morpheme performs is to mark it in genitive (possessive) case. The possessive marker in proper noun in English language is used in the same way as it is used in the common noun. Table 10 below illustrates a few examples of the proper nouns in genitive case.

Table 10: Proper nouns in genitive case

Proper nouns	Genitive form	Inflection
John	John's	-'s
Mary	Mary's	-'s
The President	The President's	-'s
Cris	Chris'	-'

Moreover, Pashto language inflects the proper nouns in gender in vocative case. Most of the names of male humans and animals are assigned the inflectional morpheme '-a' at the end which is used as the marker of vocative case in masculine proper nouns (see Table 11 below).

Table 11: Vocative case in masculine proper nouns

Masculine proper noun	Vocative form	Inflectional morpheme
Tariq	Tariqa	-a
Jameel	Jameela	-a
Ikram	Ikrama	-a

The feminine proper nouns, however, are inflected by the morpheme '-ey' in the vocative case as shown in Table 12 below.

Table 12: Vocative case in feminine proper nouns

Feminine proper noun	Vocative form	Inflectional morpheme
Shumaila	Shumailey	-ey
Safia	Safiye	-ye
Ghazala	Ghazaley	-ey

Yet one cannot generalize the rule for all proper nouns because only the nouns which end with the consonant sounds are inflected, while those ending with vowels are purely exempted from the rule.

Table 13: Vocative case in feminine proper nouns

Proper noun	Vocative form	Inflectional morpheme
Bano	Bano	Nil
Noori	Noori	Nil
Arzu	Arzu	Nil

The Influence of Classical Greek on English and Pashto Inflectional Morphology

The Classical Greek is a language with a rich morphological system. It has a range of inflectional morphemes in nouns which are denoted by various declensions (word ending). In Classical Greek, all nouns are classified according to number, gender and case. Moreover, these grammatical relations are denoted by the endings of nouns instead of any external isolated information.

The classical Greek has a complex number system. It classifies nouns into three categories, i.e. singular, plural and dual plural (as in Arabic). However, the use of dual plural is limited and therefore has been lost in Modern Greek. The number distinction is always denoted by the inflectional morphemes in nouns. Table 14 contains the different forms of Greek word "λόϒος" (word).

Table 14: Different forms of Greek word "λόϒος"

	Singular	*Plural*
Nominative (subject)	λόγος	λόγοι
Genitive (possessive)	λόγου	λόγων
Dative (indirect object)	λόγῷ	λόγοις
Accusative (direct object)	λόγον	λόγους

Moreover, the above table shows different forms of the word "λόϒος" which are also determined by difference in case. All the forms are marked for case as well as number relations. Both the distinctions of number and case are marked through inflectional morphemes in each form.

Furthermore, Greek also denotes grammatical gender (masculine, feminine, neuter) through inflectional morphemes. In Greek, every noun is marked masculine, feminine or neuter according to an abstract concept of the language. For instance, the *wall* is masculine, the *door* feminine, and the *floor* neuter.

In contrast to Greek language, English and Pashto do not denote almost the same morphological classifications. As far as number is concerned, both English and Pashto use inflectional morphemes for marking this grammatical relation. English uses an inflectional morpheme –s with regular nouns such as *boy/boys, teacher/teachers*, while the plurals of a significant number of nouns are formed irregularly, e.g. *man/men, sheep/sheep*. Besides, Pashto uses different inflectional morphemes according to the last phoneme of the nouns to denote the number (see Table 15).

Table 15: Different inflectional morphemes according to the last phoneme of the nouns

English			Pashto		
Base form	Inflected form	Inflection for number	Base form	Inflected form	Inflection for number
Flower	Flowers	-s	Gul	Guluna	-una
Child	children	-ren	Bachay	Bachi	ay→i
Man	men	a→e	Buda	Budagan	-gan
Sheep	Sheep	Zero morph	Almarayi	Almarayi	Zero morph

Where Greek language denotes all the cases through inflectional morphemes, English has only one morphological case i.e. genitive (possessive) which is denoted by the inflection *-'s* as in *boy/boy's, girl/girl's*. Similarly, in Pashto language the vocative case is morphologically marked for both masculine and feminine, e.g. *mashum/ mashuma/ mashumey*.

Table 16 below reflects the morphological cases of English and Pashto through appropriate examples.

Table 16: Morphological cases of English and Pashto

English morphological case		Pashto morphological case			
Genitive case		Vocative case			
Basic form	Inflected form	Basic form		Inflected form	
		Mas	Fem	Mas	Fem
Boy	boy's	mashum	mashuma	mashuma	Mashumey
Teacher	teacher's	wror	Khor	wrora	Khorey
Man	man's	shagird	shagirda	shagirda	Shagirdey
Woman	woman's	ustaz	Ustaza	ustaza	Ustazey
Boss	boss'	Plar	Mor	plara	Morey

The above analysis shows that Greek language has not significantly influenced English and Pashto morphology. A few areas of the inflectional morphology of English and Pashto nouns correspond to that of Greek. The following are those specific evidences which determine the influence of Greek language on the inflectional morphology of English and Pashto nouns.

1. The number system of Greek has a strong similarity with that of English and Pashto languages (except the presence of dual-number). All the three languages denote the number distinctions in nouns with the help of inflectional morphemes.
2. The gender system of Greek has no other influence on English nouns except the presence of a neuter gender. English language has a biological gender and does not mark every noun for gender distinction through inflectional morpheme. It uses the pronominal forms he/ she/ it for denoting masculine, feminine, and neuter gender, respectively.

Conversely, as compared to English, Pashto gender system is more similar to Greek. Both Greek and Pashto have grammatical gender in which every noun is classified according to the gender assigned by the grammar of the language. The only difference in Greek and Pashto gender system is the lack of neuter gender in Pashto language. Thus, Pashto inflectional morphology of noun is more influenced by Greek morphology than English.

3. The case system of Greek partly influences both English and Pashto. As it is proved from the above discussion, both English and Pashto have only one morphological case, genitive and vocative respectively. Both of these languages use inflectional morphemes to denote the particular case of noun.

Thus, it is to conclude that the proto-language Greek does not fully, rather partly, influences the inflectional morphology of English and Pashto. Further, as compared to English, the inflectional morphology of Pashto noun is more similar to Greek in marking gender of nouns through declensions.

There are two main reasons for the dissimilarities among the inflectional morphology of these three languages (Greek, English and Pashto). Firstly, every language has a distinct grammar which accounts for the structures and functions of the grammatical elements. Secondly, the variation in linguistic structures and functions comes through the phenomenon of language change over the course of time. Thus, every language acquires new structures with corresponding grammatical and semantic significance which leads to the extinction of older and obsolete forms. Same is the case with all modern languages such as English, Pashto and even Modern Greek which have withdrawn the influence of their proto-language. For instance, the Old English had a rich morphological system and was full of inflectional forms which are lost to a greater extent in Modern English. Accordingly, it is reasonable to state that English and Pashto languages have withdrawn the influence of Greek inflectional morphology to a greater extent. Consequently, both English and Pashto retain a very limited amount of inflectional morphemes corresponding to the inflectional morphology of Greek language.

CONCLUSION

In conclusion this study has found that inflectional morphology is bound, closed-class and general. English inflectional morphology has two functions in common noun. It marks the common nouns for plurality (number) and possession (genitive case). Pashto inflectional morphology has three functions in common noun. It marks the common nouns for plurality (number), masculine and feminine(gender) and case. Both, English and Pashto language also uses inflectional morphemes in irregular nouns for the above mentioned functions. Likewise, English and Pashto languages do not inflect proper nouns in the category of number. The proper noun in English is only marked for possession through inflectional morpheme. Pashto language inflects the proper nouns in gender in vocative case. Moreover, as compared to English, the inflectional morphology of Pashto noun is more similar to Greek in marking gender of nouns through declensions. Finally, the influence of Greek on the inflectional morphology of

English and Pashto languages is evident. The proto-language Greek does not fully, rather partly, influences the inflectional morphology of the two languages.

The study embodies an attempt to contribute to the existing body of knowledge in the area of inflectional morphology of English and Pashto. The findings can have useful implications the new L2 learners (second language learners), either of English or Pashto language, in coping with the challenges in learning a new and morphologically distinct language. Besides, this study aims to establish a relation between the members of West-Germanic and Indo-Iranian group of languages, English and Pashto respectively. Apart from that, the study may also serve as a guideline for the forthcoming researchers who are interested to conduct research in the same area. The study is limited only to the functions of inflectional morphemes of English and Pashto. Further studies may investigate other syntactical and lexical features of the two languages.

REFERENCES

Baugh, A. C. (1978). *A History of English Language*. London: Routledge Publishers.

Corbett, G. G. (1991). *Gender*. Cambridge: Cambridge University Press.

Dörnyei, Z., & Kubanyiova, M. (2014). *Motivating learners, motivating teachers: Building vision in the language classroom.* Cambridge: Cambridge University.

Fernandez, R. (2008). Culture and Economics. In: Durlauf, S., Blume, L. (Eds.), *New Palgrave Dictionary of Economics*. 2nd ed. Basingstoke and New York: Palgrave Macmillan.

Gamkrelidze, T. V., & Ivanov, V. V. (1990). The early history of Indo-European languages. *Scientific American*, *262*(3), 110-116.

Grierson, G. A. (1921). *"Pashto": Linguistic survey of India, Vol. X, Specimens of languages of the Eranian family*. Calcutta, India: Superintendent Government Printing.

Hallberg, G. D. (1992). *Sociolinguistic survey of Northern Pakistan, Volume 4: Pashto,Waneci, Ormuri.* Islamabad, Pakistan: National Institute of Pakistan Studies, Quaid-i-Azam University.

Hockett, C.F. (1958). *A Course in Modern Linguistic.,* New York: Macmillan Publishers.

Ilyish, B. (1971). *The Structure of Modern English*. Leningrad.

Janda, L. A. (2004). *Inflectional morphology.*University of North Carolina.

Joseph, B.D. (2005). *The Indo-European Family – The linguistic evidence.* Department of Linguistics Columbus, Ohio USA 43210-1298.

Karaminis, T. N., & Thomas, M. S. C. (2010). *A cross-linguistic model of the acquisition of inflectional morphology in English and Modern Greek*. In S. Ohlsson & R. Catrambone (Eds.), Proceedings of 32nd Annual Conference of the Cognitive Science Society. Portland, Oregon, USA.

Khattak, K. K., (1988). *A Case Grammar Study of The Pashto Verb*, PhD thesis, Department of Phonetics and Linguistics School of Oriental and African Studies, Faculty of Arts, University of London, United Kingdom.

Lass, R. (2006). Phonology and morphology. In Hogg & D. Denison (Eds). *A History of the English Language*, (pp. 43–108). Cambridge: Cambridge University Press.

McCarthy, Andrew, C. (2002). *An Introduction to English Morphology: Words and Their Structure.* Edinburgh University Press*.*

McWhorter, J. (2004). *The Story of Human Language.* The Teaching Company Publishers.

Momma, H. (2008). *Pre-history of English- A Companion to the History of the English Language.* Blackwell Publishing Ltd.

Palmer, F. R. (1984). *Grammar, A concise explanatory guide to the complex set of relations that links the sounds of the language, or its written Symbols, with the message they have to convey.* Penguin Books Publishers.

Palmer, F.R. (1986). *Mood and Modality*. Cambridge University Press. New York.

Penzl, H., (1955). *A Grammar of Pashto*. University of Michigan, Ann Arbor.

Rishteen, S. (1994). *Pashto Grammar*. University Book Agency, Khyber Bazar Peshawar, KPK, Pakistan.

Stephany, U. (1997). The Acquisition of Greek*.* In Slobin, D. I. (ed.). *The cross-linguistic study of language acquisition.* (pp.183-333). Hillsdale, NJ: Erlbaum.

Stump, G. (2001). *Inflectional Morphology: A Theory of Paradigm Structure. .* Cambridge: Cambridge University Press.

Tagey, H., & Robson, B. (1996). *A Reference Grammar of Pashto,* Center for Applied Linguistics, Washington, D.C.

Tenorio, E. H. (2000). Gender, sex and stereotyping in the Collins COBUILD English language dictionary. *Australian Journal of Linguistics*, *20*(2), 211-230.

Toivonen, I. (2003). *Non-Projecting Words: A Case Study of Swedish Particles*. Dordrecht: Kluwer.

Valeika, L. & Buitkiene, J. (2003).*An introductory course in Theoretical English Grammar*. Vilnius: Vilnius Pedagogical University.

Yule, G. (1996). *The study of language*. Cambridge: University Press United Kingdom.

Zuhra, F., & Khan, A. (2009). *A Corpus-Based Finite State Morphological Analyzer for Pashto.* Department of Computer Science, University of Peshawar, KPK, Pakistan.

Zyar, M. A., (2003). *Pashto Grammar*: Danish publishing association, Qissa Khwani Bazar Peshawar.