

УДК 81.1 DOI 10.52575/2712-7451-2024-43-2-206-213

Comparative Analysis of Unrelated Languages on Morphological Level

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Abstract. Despite the existence of many works devoted to the analysis of comparative linguistics based on the material of unrelated languages, there is a knowledge gap in modern linguistics in the field of comparative analysis of English and Arabic languages. The aim of the study is to identify similar and distinctive properties of English and Arabic morphological systems which is necessary to develop recommendations for successful foreign language teaching and eliminating errors in the study of grammatical structure. Based on the application of a comprehensive methodology combining methods of comparative analysis, induction and deduction, and continuous sampling, the authors systematize the key categorical features of speech parts (noun, pronoun, adjective, verb) using the example of unrelated languages (English and Arabic). As a result of the research work, key morphological markers of speech parts were identified depending on the categories; recommendations for teaching grammar of a foreign language were formulated. It is shown that nouns, adjectives, verbs, pronouns, relative pronouns, definite article in Arabic have labeling, while in English only nouns, pronouns and verbs are morphologically marked. It is concluded that the discrepancy between grammatical markers in English and Arabic, depending on belonging to a particular category, is the reason for the mistakes made by communicants in speech: oral and written. Most mistakes are related to the agreement of adjectives and nouns. The results of the research work are of interest to students studying Arabic and English, teachers of linguistics, research scientists analyzing the specifics of the grammatical structure of unrelated languages.

Keywords: morphology, contrastive analysis, English, Arabic, noun, pronoun, adjective, verb

For citation: Voloshina T.G., Wafa S.N., Bocharova E.A. 2024. Comparative Analysis of Unrelated Languages on Morphological Level. *Issues in Journalism, Education, Linguistics*, 43(2): 206–213 (in Russian). DOI: 10.52575/2712-7451-2024-43-2-206-213

Сравнительно-сопоставительный анализ морфологических систем неблизкордственных языков

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Аннотация. Несмотря на существование множества работ, посвященных изучению вопросов сопоставительной лингвистики на материале неблизкородственных языков, в современном языкознании наблюдается пробел знаний в области сравнительного анализа английского и арабского языков. Целью исследования является выявление сходных и различительных свойств морфологических систем английского и арабского языков, что необходимо для разработки рекомендаций для успешного обучения иностранному языку и устранению ошибок при изучении грамматического строя. Основываясь на применении комплексной методологии, сочетающей методы сравнительного анализа, индукции и дедукции, сплошной выборки, авторы

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систематизируют ключевые категориальные особенности частей речи (существительного, местоимения, прилагательного, глагола) на примере неродственных языков (английского и арабского). В результате исследования выявлены ключевые морфологические маркеры частей речи в зависимости от категорий; сформулированы рекомендации по обучению грамматики иностранного языка. Показано, что существительные, прилагательные, глаголы, местоимения, местоимения, определенный артикль арабском относительные В языке обладают маркированностью, в то время как в английском языке только существительные, местоимения и глаголы обозначены морфологически. Сделан вывод о том, что несоответствие грамматических маркеров в английском и арабском языках в зависимости от принадлежности к той или иной категории является причиной совершения ошибок коммуникантами в речи: устной и письменной. Большинство ошибок связано с согласованием прилагательных и существительных. Результаты исследования представляют интерес для студентов, изучающих арабский и английский языки, преподавателей-лингвистов, ученых-исследователей, анализирующих специфику грамматического строя неблизкородственных языков.

Ключевые слова: морфология, сравнительно-сопоставительный анализ, английский язык, арабский язык, существительное, местоимение, прилагательное, глагол

Для цитирования: Voloshina T.G., Wafa S.N., Bocharova E.A. 2024. Comparative Analysis of Unrelated Languages on Morphological Level. *Issues in Journalism, Education, Linguistics*, 43(2): 206–213 (in Russian). DOI: 10.52575/2712-7451-2024-43-2-206-213

Introduction

Contact linguistics does not lose interests in actual branches of scientific analysis in the modern world. Issues of intercultural interaction come to be relevant in modern life. One of the methods used for contacting languages and cultures specifics is the method of comparative analysis. The purpose of this method is to identify unique and universal features.

In our research work the method of contrastive analysis is used to depict similarities and dissimilarities of languages' morphology. The analyzed method has been used in describing European and African languages in works by many linguists. Theoretical aspects of contact interaction and specific characteristics of borrowings are analysed in works by Baghana J. and T.G. Voloshina [Baghana et al., 2018]. To reveal phonetics, lexical and grammar features of French and English dealing with local African languages J. Baghana, T.G. Voloshina, Ya.A. Glebova use the contrastive method and stress the importance of interference influence [Baghana et al., 2020]. Many linguists stress the necessity to save cultural diversity in the process of cross cultural communication [Baghana et al., 2023].

A Multilingual Language Modeling Analysis is impossible without the methodology based on contrastive analysis [Park et al., 2021]. The contrastive analysis method is used to describe peculiar features of English and Arabic, and the results of such works are of great importance while translation teaching [Alolaywi, 2022]. B. Sagot deals with the a morphological lexicon for the Persian language in comparison to contact and noncontact languages [Sagot, Walther, 2010]. Affixes in English and Kurdish while comparing and contrasting language morphology is described in works by S.A. Fakhry Abdulla and M.H. Saeed Qadir [Abdulla, Qadir, 2020]. The role of markedness in the morphological analysis of Spanish and other languages is revealed in works by J.A. Bañón and J. Rothman [Bañón, Rothman, 2016]. The specificity of morphological typology on comparative method is described in works by A. Keidan [Keidan, 2022]. The problem of morphology and syntax is analyzed by M. Kracht [Kracht, 1999].

The purpose of our research work is to analyze the morphological structure using the example of Arabic and English languages and to identify similarities and distinctive features between them. In our work, we understand the distribution of morphemes as a combination of all contexts variants to function in. A qualitative analysis of any morpheme involves studying the features of its distribution, as well as analyzing its meaning. In our work, limitations will be



identified in the process of combining morphemes' possibilities, the order of morphemes can be arranged in specific way, combinations of morphemes that cannot occur within the framework of a single word class are considered to be developed morphemes.

The research work presents complex schemes for the selection of allomorphs, and also indicates the type of meaning implied in the absence of any morpheme of a given order. The work systematizes possible allomorphs and rules of correct choice. The analysis of morphological systems was based on unrelated languages, namely, the specific morphological features of Arabic and English morphemes. The inflectional categories of number, gender, person, case, tense, mood are defined. The basis or root has been determined for each part of speech, and inflectional elements such as affixes have been studied. Allomorphs are identified and their distribution is determined, the features of inflectional elements and any modifications associated with them are revealed.

While describing Arabic and English word-formation morphemes we pay attention to formal characteristics and semantic relations. The formation of the base is described based on the affixes used. Affix is necessary to analyze belonging to the class or class of the basics, including the roots. The description of constraints within a class or classes is also very significant. Arabic and English languages differ significantly in classes that are characterized by inflectional affixes. Therefore, we cannot compare their forms within the same class. Inflectional morphemes, as well as the processes of word formation and compounding do not coincide in any of the word classes. Morphemic analysis of Arabic and English is impossible without conducting analyzing the meanings of forms in another language.

The research work describes complex cases of morpheme analysis for students learning Arabic and English as the foreign language. The work provides recommendations for improving the understanding of the morphological structure of the foreign language in the learning process.

Methods

The methodology of morphological systems' comparative analysis includes the following processes: analysis and description of Arabic and English languages morphology elements (analysis of such processes as inflection, derivation and compounding) as well as systematization meanings and distribution of morphemes by groups in the studied languages.

Results and discussion

A morpheme is a minimally significant grammatical form. A morpheme is not equal to a word, it can consist of one phoneme, one or more syllables. The morpheme can be free or bound. A free morpheme is a unit that can function as an independent word or enter into the structure of other words. A related morpheme, in turn, does not have the ability to be reproduced separately, it is always combined with one or more morphemes, forming a whole word.

The order of morphemes is strictly fixed. Any word must contain a central morpheme, which has a key meaning. The central morpheme is called the root or base. The word also contains one or more auxiliary morphemes, which are commonly called affixes. The root is an allomorph of a morpheme that has another allomorph representing a free form. A word can contain one the base and several affixes. The base of a word can be free or connected and can have more than one form. The affix is added directly to the root or to the base of the word.

The base consists of a morpheme or a combination of morphemes to which an affix is added. Some bases or words contain two or more roots, such words are commonly called composite. An affix is a morpheme that takes a position before the base or behind it. The roots in a word are usually longer than affixes and much more numerous in the vocabulary. If the affix occupies a position preceding the root, then it is called a prefix, if it is located behind the root, then it is a suffix. the interpositional position of the suffix indicates an infixal position, in this case the suffix is called an infix. A word can contain up to four suffixes, as for the prefix, its number does not exceed one, except for the negative prefix un before another prefix. A morpheme is a combination of one or more allomorphs, which vary greatly in shape depending on their environment. Many morphemes in British English have only one allomorph. Few morphemes are used in all forms without more than one allomorph. English /in/ is a morpheme that has only one form. When allomorphs are determined by phonological criteria, they are phonologically conditioned. Modifications of bases and affixes in morphological processes are known as morphophonematic changes, and their analysis is morphophonemics.

Morphophonemics is the process «by which morphemes differ in their pronunciation, for example: the plural morpheme /-s/ has three individual forms: /-s/, /-z/, /-iz/, and they make up three allomorphs of the plural morpheme» [Rizvi et al., 2004].

Morphology is a two-layered formation: the outer layer, which includes inflectionally related forms, and the inner layer, which is a derivation. When analyzing morphological systems, it is necessary to focus attention on the concept of phonexia, which is a marker of a change in the form of words. The inflection of a noun, pronoun, and adjective is called declension; for verbs, this process is called conjugation; for adjectives, it is - comparison.

In our research work, the analysis of morphological systems is made on morphology of English and Arabic languages. There are two forms of numbers in English, this is the singular and the plural.

Morphemes in English

The number denotes one item, the plural denotes two or more items. Nouns, verbs, pronouns, indefinite article, demonstrative pronouns have number of markers in the English language. The subject in the sentence correspond to a certain number and has the appropriate markers. The singular subject takes the form of a singular verb, and the plural subject takes the plural form, respectively. In English, demonstrative pronouns and the indefinite article also illustrate the correspondence of a number to the noun they correspond to.

Noun

In English, the noun is subject to inflectional change in accordance with belonging to a number. When forming a plural, the endings /s/, /es/ are added to the singular noun. The suffix /s/ is added to singular forms, for example: *cat - cats, cup-cups*. The suffix /s/ has many allomorphs. The suffix /es/ is added to singular nouns ending in *-s, -z, -sh, -ch*, for example: *bus-buses, dish-dishes, bridge-bridges* and others.

The suffix -s is not added to singular invariable nouns ending in -s. Although such nouns are plural in form, yet they are construed as singular, for example: *news, measles, rickets* and others. Subject names ending in *–ics* (for example: *linguistics, phonetics, statistics*), some games' names (*cards, bowls, checkers*), some proper nouns (*Athens, Brussels*) are used in the singular form.

The suffix -s occurs in some plural invariable nouns, such nouns have no singular form, for example: tools (*binoculars, pincers, pliers, scales, scissors*), other nouns that only occur in the plural form (*the Middle Ages, archives, clothes, goods*).

There is also a zero suffix symbolizing no formal change in the stem form, but with plural meaning, zero suffix form is used with collective nouns (for example: *cattle, gentry, people, police, youth*).

Some singular nouns ending in *-f* form their plurals by voicing of the last consonant of the stem and adding the plural suffix *-es* (for example: *wife -wives; half- halves*). Some singular nouns ending in *-f* have a regular plural, such as *beliefs, chiefs, roofs, safes, proofs, cliffs*. Several nouns ending in *-f* have both regular and voiced plurals, for example: *dwarfs, dwarves; handkerchief, handkerchiefs; hoof, hooves; scarf, scarves*.

The suffix *-en* is used with or without additional changes in three words, such as: *brother*, *brethren*; *ox*, *oxen*; *child*, *children*.

A zero suffix zero indicates no formal change in the stem form, but with plural meaning. Such nouns can be treated as singular or plural, for example: some nouns of animals, bird and fish (*sheep-sheep; fish-fish; pike-pike*). Some animal names have two a zero plural and a regular plural. In such cases, the zero plural is the one used in the context of hunting (language of hunters and fishermen); the regular plural is used to denote different individuals, varieties or species.



Quantitative nouns referring to numbers and measurements when used after a number or a quantity word such as: *hundred, thousand, million, billion, dozen, brace* are used in a singular form.

Certain singular loan words from other languages mostly Latin have retained the plural formation used in the original language. The following plural suffixes are used: taking the plural suffix -*i* as in *stimulus-stimuli; alumnus- alumni; locus-loci*. Singular nouns ending in -*a* take the plural suffix -*ae*: *alga-algae; larva-larvae*. But certain loan words have regular plural: *bonuses, campus- campuses, virus- viruses*.

Verbs

Verbs are not fully inflected for number in English. Only the form of Present third person singular is marked for number. The Present third person singular is the form used with singular nouns, with *he, she, it* and words for which these pronouns will substitute and with word groups, for example: *He goes; She writes*.

The Present third person singular morpheme -z has the same allomorph in the same distribution as the plural and possessive forms of the noun: -z as in *plays, drives* and others.

Pronouns

Number distinctions in English occur with the first person (*I*, *we*); and third person (*he*, *she*, *it*, *they*). The second person pronoun (*you*) is unmarked for number. English also makes number distinctions in definitive pronouns, for example: *one-ones; other-others*.

Determines

English articles in some forms show agreement with the modified noun. The indefinite article occurs only before singular nouns (for example: *a book, an orange*). However English demonstratives have singular-plural forms (for example: *This book -these books; That boy-those boys*).

Morphemes in Arabic

The Arabic language is characterized by the functioning of three forms of number, which include: singular, dual and plural. The singular number, as in English, refers to one subject; the dual number denotes two representatives of the class; as for the plural, it denotes three or more subjects Arabic adjectives, nouns and verbs, as well as pronouns have many markers. Definite the article in Arabic has no markings. The subject expressed by a noun or pronoun and the predicate illustrate the correspondence to a certain number. Adjectives and relative pronouns in Arabic correspond to the noun they modify. The singular noun is used with only singular verbs; dual nouns function in speech (oral and written) with double and plural verbs.

Nouns and adjectives

In Arabic, nouns and adjectives are associated with a certain specificity of the inflectional category. A double suffix and a plural suffix are added to the base of the singular noun. The double suffix has several allomorphs. Below is a detailed description of the double and plural suffixes and their allomorphs, as well as their functioning in the language and meanings.

Double morpheme

The formation of a double morpheme and its variants is carried out as follows: the inflection *-aana*, for example: Nominative: بنت ,ولد كتاب ,بنت ,ولد كتاب ; Accusative and Genetive: ولدان -ولدان : (Al-Jarf, 1994: 29].

Arabis collective nouns meaning representatives of two groups take forms of the dual suffix -aani, -aan, -aa, -ayni, -ayn, -ay, for example: جمالان ، ابلان ، خيلان ، خيلان ، خيلان ، شعبان ، شعبان ، قومان.

Some nouns occur only in the dual and have no singular base form, for example: اثنتان ، اثنان ، اثنان . There are specific nouns which have only dual in form, but they possess only singular meaning, for exaple: زيدان ، حسنين. One must stress, compound nouns based on the model "noun + opposite noun", the dual suffix is added to the first element, for example: نواتا مد الله عبد الله عبدا لله عبدا الله عبدا الله عبدالله عبدالله



Plural forms

The plural forms in Arabic are divided into sound or polylines. The sound forms of the plural of nouns have the forms ща male or female by birth. The plural morpheme is implemented in speech in a huge number of sound variants. Their distribution is as follows: masculine sound variants *-una*, *-un/*, *-u u*, *-irina*, *-i in*, *-ii*. "The suffix *-yuna* is added to the basic singular form or genitive cases: *-ih* is used in accusative or genitive cases before a pause, for example: نشيطون منشطون is deleted before the plural suffix; *ي* المدرسة معلم المدرسة معلمو المدرسة معلمي اكرم اكرمون اكرمين نشيط نشيطون suffix; *a* before the plural suffix [Alolaywi, 2022, c. 140].

Masculine nouns ending in feminine substitute their final *a* by *w* before the plural suffix, for example: حرباء جرباوون ببغاء ببغاوون ببغاووين. In compound nouns consisting of a noun and an apposited noun, the plural suffix is added to the first element, for example. الله عبدو الله عبدو الله عبدي الله عبدي is added to the base form of agglutinated compounds, verbal compound nouns, for example: نوي is added to the base form of agglutinated compounds, verbal compound nouns, for example: الحق جاد ذوو الحق جاد ذوي الحق عباد ذوي : Some nouns ending in the plural suffix - *uun*, or *-iin* are plural in form, but have a singular meaning, for example: زيدون ، خلدون »

Adjectives

"An adjective in Arabic may be of singular, dual, plural form. Dual adjectives are formed by adding the dual suffixes *-aan*, *-aani*; and by adding the suffixes *-ayn*, *-ayni* to the singular form.Plural adjectives as well as nouns are either sound (masculine or feminine) or broken" [Ahmed, 2022].

Number

Number is an obligatory category in adjectives when they follow the noun that they modify. Singular nouns are modified by singular adjectives, a dual noun is modified by a dual adjective and a plural noun is modified by a plural adjective, for example: singular forms: البنت ,الكبير الولد , dual forms: البنات , الكبار الاولاد ; plural forms ; نشيط معلم , الجميلة البنات , الكبار الاولاد .

Verbs

One must stress in Arabic the tenses (past perfect, present imperfect, imperative verbs) are marked for number. Perfect and imperative verbs have special markers for number illustrated in the form of a pronominal suffix and imperfect verbs. The perfect, imperative and imperfect pronominal number prefix come in perfect verbs with the suffixes *-tu*, *-ta*, *-ti* which show singular markers; *tumaa* and *humaa* identity dual forms. As for *-naa*, *-tu* these markers represents the first person singular.

Conclusions

The study of non-related languages is based on the derivation of their similar and distinctive features. In our research work, the features of two languages - English and Arabic - were analyzed. The article provides the analysis of English and Arabic morphological level in order to develop recommendations for successful teaching of English and Arabic as a foreign language and to eliminate errors in the study of the grammatical structure.

The result of the research work is the identified key morphological features, namely the marking of separate speech parts which is dictated by belonging to a certain grammatical category. Taking into account the data obtained, recommendations were formed for the successful teaching of foreign language grammar rules. It was proved when studying nouns, adjectives, verbs, pronouns, relative pronouns, and definite articles in the Arabic language, special attention should be paid to their labeling. In turn, for the analysis of the morphological structure of the English language, only nouns, pronouns and verbs are subject to form change. The discrepancy between

the grammatical markers of certain categories in English and Arabic leads to mistakes in speech, which is due to the influence of the native language. To a greater extent, communicants make mistakes in writing, which manifests itself in the discrepancy between the agreement of adjectives and nouns. Errors in speech (oral and written) are caused by interference.

In the future, the research is supposed to study the specifics of interference processes in teaching English and Arabic at the level of phonetics and vocabulary.

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Конфликт интересов: о потенциальном конфликте интересов не сообщалось. Conflict of interest: no potential conflict of interest related to this article was reported.

Поступила в редакцию 02.12.2023 Поступила после рецензирования 16.02.2024 Принята к публикации 10.03.2024 Received December 02, 2023 Revised February 16, 2024 Accepted March 10, 2024



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