

Etymologic Diversity of Prefix Morphemes of the Terms Used in Plant Sciences in English Language and Their Structure Semantic Features

Turaxodjaeva Moxidil Obidjonovna,

Doctorial student of the National University of Uzbekistan

Abstract

This article is focused on the structure-semantic analysis of the investigated terminology of plant sciences, relations of prepositive morphemes with the stem in different word forms. Prefix morphemes of different etymology derived from Latin and Greek languages are comparatively characterized. The prefix and stem morphemes used most in the terminology of plant sciences were identified and the morpheme content of terminological lexis of the scientific style in plant sciences was analyzed.

Key words: *affix, prepositive morpheme, formal, frequency, component, phonetic, assimilation, opposition, structure type.*

It is considered to be important to discuss prefix morphemes in the content of a word that has great affix importance in the inner structure of morpheme order in the content of a word. The prefix morpheme that is prepositive to the word stem is considered to be auxiliary as suffix morpheme in the morpheme location of a word. Besides it decorates the word and expresses certain meanings. During our investigations, the structure-semantic analysis of the terms of plant sciences showed that the relations of prepositive morphemes with the stem in different word forms are not the same. In the adjectives derived from Latin language they are given with the following structure types:

1. A prepositive morpheme is added to a free common or complex stem i.e. to the stem that can be separated to a word basis and suffix morphemes. In this case a prefix morpheme is easily separated from the word stem that can be used in an independent meaning. 29 of this kind of adjectives were found during our investigation. 14 prefix morphemes are of them. They are, as a rule, of one meaning that are related with the stem on the basis of formal-semantic and phonologic generalization and serve as one of the means of forming word-terms of the scientific style that are being investigated. We are going to present you the

¹ The data about the form and meaning of all prefixes derived from Latin and Greek languages are taken on the basis of the following dictionaries: 1) Latin-Russian dictionary, I. Kh. Dvoretzkiy. M., Russian language, 1976. 2) Greek-Russian dictionary, M. Gratsinskiy, 1878. table of these prefix morphemes¹, here they are given in an alphabetical order [1,2]. The frequency of their usage is not big.

The most frequent used one is the prefix- ob and it is used in 5 words, and the prefix -in is used in 4 words. The rest of prefix morphemes are met once or twice.

Prefix morphemes	Meaning	Example	Translation
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ac-	intensity, include	Accumulate	congeries, dense, sharp, thick; congested
ap-		appressed	concised
bi-	two-sidedness	bilabial bipinnate	closure of 2 lips, with the leaflets divided into smaller leaflets
con-	unite, join	convolute conduplicate	formed or covered into a twisted shape, coiled up longitudinally
circum-	locality	circumsessile	attached the plant stem
de-		depressed	squeezed, squashed
dif-	incompleteness of the motion	diffuse	spread, longitudinal
e ₋₁	reversibility (to change the direction of the motion)	elongate	uneven, recessed
e ₋₂	incompleteness of the motion	emarginate	deprive of its edge
ex-	exception	excurrent	conveying fluid outwards
in ₋₁	incompleteness of the motion, negation	indehiscent	not splitting open to release the seeds when ripen,
in ₋₂	to fill with quality	involute imbricate inflated	curled spirally, tegular increased in size by filling with air
ob-	reverse to taking	obcordate obovate	inversely heart-shaped, inversely ovate
re-	repetition, return to initial position	recurved	curved backward, bent
suf-	incompleteness of the quality	suffruticose	woody at the base but remaining herbaceous above having three leaflets
tri-	consisting of three components	trifoliate	relating to one sex: male or female

uni-	disposable	unisexual	
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Union of a prefix morpheme with a free word basis does not usually give new phono morphologic versions the opportunity to appear and develop. However, the case of assimilation of a consonant occurs under the influence of the capital letter of the stem in the derived prefix morphemes in the terminological layer of our adjectives. And in the result of it, new graphic and phonetic versions of morphemes appear. So, in the result of the assimilation of a Latin ad- before c, f, g, l, n, p, q, r, s, t “ac”- and “ap”- morphemes appeared; con- morpheme appeared in the result of assimilation of the com- when standing before c, d, f, g, j, l, m, n, p, q, s, t, v; the morpheme –dif appeared in the result of the assimilation of –dis when standing before the letter -f; -suf is the result of the assimilation of –sub- when standing before f; e – morpheme is the result of shortening of ex- before the consonants except h, c, p, q, s, t.

All the prefix morphemes given in the table are peculiar to the analyzed terminology and are rarely met in the commonly used words. Studying these kinds of morphemes in the content of a word, identifying their combinatoric features give the opportunity to understand the semantics of a word.

2. The next structure type consists of the connection of prepositive morpheme with the word basis that is not independent. A number of word pairs are met among the adjectives of a terminological field of plant sciences, the prepositive morphemes - ad-, bi-, con-, de-, ex-, re-, per-, pro- can be united with independent word basis and despite it they can be easily separated in their semantic oppositions. For instance:

adnate – connate; decumbent – procumbent;
biennial – perennial; extrorse – introrse – retrorse.

Besides this, the morphemes bi-, con-, de-, ex-, in-, re- can be met as unions with free or complex word basis:

bilabial recurved extipulate
convolute depressed inflated

Per-, pro- prepositive morphemes are not met in free word basis compounds, and - ad- is met in a new version of - ac- or - ap-. The separation of the first structure type of adjectives has no critiques but the second structure type of adjectives are separated on the basis of having common formations by constant mutual relations, structure and affix or stem morphemes [3].

So, the usage of - ad-, bi-, con-, de-, in-, per-, pro-, re- prepositive morphemes in the compound of free word basis and retention of the tasks of separating the meaning in oppositions are suspected to think that they are presented as model adjectives in these kinds of languages. The above mentioned prepositive morphemes remain the respect of prefix morphemes in them.

Besides these 2 types, there exist such adjectives as -incised, included, inserted that is not separated. In today’s English the words cised, cluded, serted do not exist. In the analyzed texts we do not meet the formations of these words we can compare to. As a result we came to the conclusion that in these words the conjunction in- has lost its respect as a prefix morpheme.

We paid attention to the morpheme content of terminological adjectives derived from Greek. The structure type of prepositive morphemes easily separated from the stem is met among them as met in Latin language. These kinds of words are 21 totally and 15 prepositive morphemes are met among them. The frequency of their usage is not as high as the prefix morphemes of Latin that are easily separated. We recommend you a table where the prepositive conjunctions are placed in an alphabetical order and they are given with the meanings of the word order in English and examples taken from the scientific style.

№	Pre positive conjunction	Meaning	Example	Translation
1.	a-	Absence, insufficiency	apetalous	having no petals
2.	ana-	Moving up, repetition, opposite motion	anatropous	completely inverted, turned back
3.	amphi-	two-sidedness, rotaract	amphitropous	partly inverted as a horseshoe
4.	apo-	take away, finish, stop, deny	apocarpus	consisting of separate carpels
5.	di-	reversible	dimorphous	representing two distinct forms
6.	el-	insertion, placed inside	Elliptic	having the form ellipse, incomplete
7.	endo-	accession, intercalation	endogenous	originating or produced within an organism, tissue or cell
8.	epi-	differentiate	epigynous	with the stamens and other floral parts situated above
9.	hetero-	various	heterogenous	consisting dissimilar constituents
10.	homo-	similarity, sameness	homogamous	having atamans that do not differ sexually
11.	hypo-	being under smth	hypogynous	having the stamens beneath the ovary
12.	mono-	disposable	monodelphous	united into one group by the filaments
		near, close		having stamens around the edge of a cuplike receptacle
				relating to polygamy

13	peri-		perigynous	involving parts that are similar or balanced in some way
14	poly-	multy placed together, similarity	polygamous	
15	sym-(syn)		symmetrical	

A.M.Welstein inserts peri-, mono-, hetero-, homo- typed morphemes with a free meaning into the stem morphemes [4]. If to think from this point of view, we will deal with complex words not with compound ones. The diachronic analysis of these words shows that they possess different etymologic sources. In Greek besides certain independent meaningful parts of speeches (adverbs and adjectives) there exist grammatical homonyms in the form of auxiliary words (prepositions) and their morphological homonyms in form of prefixes. One can see from the following table that only the morpheme a- had no grammatical homonyms and in today's English it is defined as a prefix morpheme that points at "the absence of the item the stem shows". The prefix morphemes mono-, poly-, sym-(syn) are derived from independent meaningful parts of speech. They are defined as components of words in the scientific style of today's English and preserve their semantics wholly. If we speak about other prepositive morphemes, they were used as prefix morphemes in the source-language and had homonymous forms among auxiliary and basic words. It is difficult to say which of them were inserted in present scientific terminology. This question demands another investigation.

Grammatical homonyms and their semantics in the source language					
№	Pre positive morphemes derived into English terminology	prefix	preposition	adverb	adjective
1.	a-	absence, insufficiency	-	-	-
2.	amphi-	<i>ἀμφι</i> two-sidedness, bilateral motion, high degree	<i>ἀμφι</i> around, close to near, towards, about, because of, -at	<i>ἀμφι</i> around, near, all around	-
3.	ana-	<i>ἀνά, αν</i> Moving up, strengthen, repetition, reverse motion	<i>ἀνά,</i> -to, onto, on, along, during, in, while	<i>ἀνά,</i> upwards, up, onto, high in	-
4.	apo-	<i>ἀπό</i> Move away, not execute, return, stop,	<i>ἀπό</i> -from, -beginning with, due to, because of,		-

5.	di-	deny δι two sidedness, dividing	by, besides, among, in -	δις← δFις twice, two times, two portions	-
6.	el-	έν-, έμ-, έ-, έρ-, έγ- mowing into	έν into, inward, -to, -from, -in, around, with, for, due to, off, by, with, after -	έν along with, on the basis, along with, evenly, equal, identically, equally	-
7.	endo-	ένδο being inside, placing inside	έπί -to, for, for the sake, thinking of, at, at the side, with, by, through, on; near, in front of, at, near, in, at the time, closer to -	ένδον in, inside, among, between έπί with, in addition to, along with; besides, after that, then, for this, due to, thus, so, therefore, later, besides	-
9.	hetero-	έτερο айирма, difference, strange, variety; to differ; to be not the same as	-	ομοιον ομοτα equal, equally, also, this kind, as, like, the same as υπό,υπαί at the bottom, below, downwards, hidden, hiding	ετεροτος different, various, separate
10	homo-	ομό similarity, sameness,the same, (be the same)	υπό -further, behind, at, to, for, due to, because of, from, of, between, in; in front of, beside, since,	μόνον the only, only	ομοτος the same, equally, equal; the same as, alike, suitable, due to, suiting, harmonized -
11	hypo-	υπό be under			

12	mono-	μονό loneliness, айримлик, uniqueness, rareness	with the help of, with, off, by, through, after, then, as a result, in the result -	one, unique; just, recently; only, alone, just, finally.	μόνος unique, alone, the only, wonderful, priceless; some, other, independent special, peculiar, free; left, abandoned, unattended refused -
13	peri-	περί occurrence, be close to, be near, be at, be around, be not far from.	περί Around, not far from, near, in front, close to; recently, lately; on, about; if speak about, of. -	περί, περί round, around; all around, all-sided, wholly; near, close to, in emergency, too, too much, overly	πολὺς Much, numerous, a number of, many times, crowded, populous; big, large, vast, broad, extensive, full, whole, long, extended; full of., rich in.; complete, total, comprehensive, absolute, entire; hard, high, ceremonious sonorous
14	poly-	πολύ plurality, a great quantity	πολύ, Εὖν	πολύ, πολγά many, quite, a great deal, plenty of, lots of; several times, regular, frequent; often, over and over, a lot of, in most cases; always, all the time, ever, any time, considerable, rather; with force, hard, very, extremely	

15	sym-	<p>σύν, ἔνυ</p> <p>All, all of, totally, complete</p>	<p>together, along with, together with, at the same time, simultaneously, equally; out of, by, with, along with, as, after..., then, as soon as; very close, near, at, in front</p>	<p>σύν, ἔνυ</p> <p>together, with, along with; at a certain time, at the same time; equally, along with, team wise, in conjunction</p>	
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The prefix morphemes are not typical to adjectives derived from Roman and Anglo-Saxon languages. Only 4 words were met besides di-, de-, ex-, ir (-r – a phonologic version of in before the stem) prefix morphemes in the separated stem derived from Greek and Latin languages.

Prefix morphemes are not typical to the nouns derived from Latin, Anglo-Saxon and Roman languages as well.

The morpheme content of the nouns derived from Greek language differs from the morpheme content of other words. The prefix morphemes : apo-, en-, endo-, epi-, exo-, hypo-, micro-, peri-, syn were met in their content but, only 2 of them – endo-, epi- are united with free stems in the words “endosperm” and “epidermis”.

endo-, exo-, hypo-, syn- morphemes are united with the stems that are not present independently in today’s English, but they express a part of the source language. These kinds of parts are -carp from a Greek karpos (at present English it is carpus); cotyl from a Greek kotyledon (at present English it is cotyledon); anth from a Greek anthos (at present English it is anther). For example: endocarp – inner part of a fruit, sxopard – outer part of the fruit, pericarp –peel of the fruit (the layer that covers the seed or fruit pit), syncarp – an aggregate fruit, hypocotyl – the part of a plant embryo directly below the cotyledons, perianth –the envelope of a flower.

The English words formed by this way are actually lexically shortened words i.e. shortened words by their structure are used in both oral and written speeches [5].

Thus, the analysis of the morpheme content of terminological lexis of the scientific style of plant sciences shows the followings:

1. the systemized derived words consist of the order of morphemes arranged on the basis of the model “prefix morpheme + stem morpheme + suffix morpheme” of the terms in dictionaries of plant sciences of English.
2. basic suffix morphemes of word-tems of the scientific style of plant sciences in present English are the following: -aceous^a, -ageⁿ, -al^a, -alⁿ, -ant^a, -ar^a, -ardⁿ, -ate^a, -ed^a, -enceⁿ, -erⁿ, -etteⁿ, -iaⁿ, -id^a, -ive^a, -let^a, -oid, -ous^a, -ule^a, -umⁿ, -y^a and most of them are used rather seldom in daily conversations.
3. the comparative characteristics showed that the task of a suffix morpheme as an index of a part of speech are partly similar in professional and common used words, but its semantics has additional characteristics and is broadened in terminology.
4. generalization of semantic, morphological and grammatical relations in poly semantic suffix morphemes of various etymological sources give the opportunity to consider them as synonyms.
5. the most used prefix and stem morphemes of word-terms of plant sciences are the following: ac-, ap-, bi-, con-, circum-, de-, dif-, ex-, in-, ob-, re-, suf-, tri-, uni-, a-, ana-, amphi-, apo-, di-, el-, endo-, epi-, hetero-, homo-, hypo-, mono-, peri-, poly-, sym-. All prefix and stem morphemes have the same importance as a rule. In spite of the fact that their quantity content is big enough, their frequency of usage is not great.
6. presence of prefix morphemes in the word content that do a terminologic task are mostly peculiar to the adjectives, derived from Latin and Greek languages and partly to the nouns of Greek. If we speak about the usage of these morphemes, the secondary separation of different homonymus forms that are

present in a source language from their previous stems in recipient language did not make their assimilation. In present English they are taken as elements derived from foreign languages.

BIBLIOGRAPHY

1. Latin-Russian dictionary, I.Kh.Dvoretskiy. M., Russian language, 1976.
2. Greek-Russian dictionary, M. Gratsinskiy, 1878.
3. Smirnitskiy A.I. some remarks on principles of morphological analysis of basis. Выпуск 5, 1948, p 21-26.
4. Wellsteine A.M. Structure-semantic peculiarities of English biologic terminology. Functional style of common scientific language and methods of it investigation. M., 1974, p. 45-57.
5. Akhmanova O.S. Questions of optimization of communicative systems. M., 1971. p 416.