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## **The Formation of Raising Verb Argument Structure in Early Modern English**

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The paper is focused on studying the formation process of the argument structure of the raising verbs and, as a consequence, the establishment of the subject raising construction in the Early Modern English language. The emergence of studied verbs in the history of English is associated with the process of grammaticalization, when a verb with a full argument structure turns into a raising one-argument non-transitive verb that has no external argument and does not assign any theta-role to its internal argument; and subjectification, during which we observe the transition from the concrete semantic meaning of the verb to the abstract one. Restructuring of the argument environment of the raising verb is caused by the semantic bleaching of its meaning; as a result the Agent and the Cause are combined at the semantic structure level in the process of detransitivation. The Early Modern raising verb is a semantic and syntactic nucleus of the subject raising construction, which determines its main peculiarities.

**Key words:** argument, detransitivation, subject raising construction, raising verb, theta-role.

**Полховська М. В., Очковська А. П.**

**Становлення аргументної структури рейзингового дієслова в ранньоновоанглійській мові.**

Дослідження спрямоване на вивчення процесу становлення аргументної структури рейзингового дієслова в ранньоновоанглійській мові, що сприяло остаточному формуванню рейзингової конструкції з суб'єктом. Встановлено, що поява досліджуваних дієслів в історії англійської мови пов'язана з процесом граматикалізації, а саме з деакузативацією та суб'єктивацією. Давньоанглійське дієслово з повною аргументною структурою протягом середньо- і ранньоновоанглійського періодів стає одноаргументним неперехідним рейзинговим дієсловом, що не має зовнішнього аргумента і не призначає тета-ролі.

**Ключові слова:** аргумент, деакузативація, рейзингова конструкція із суб'єктом, рейзингове дієслово, тета-роль.

**Полховская М.В., Очковська А. П.**

**Становление аргументной структуры рейзингового глагола в ранненовоанглийском языке.**

Исследование направлено на изучение процесса становления аргументной структуры рейзингового глагола в ранненовоанглийском языке, что способствовало окончательному формированию рейзинговой конструкции с субъектом. Установлено, что появление исследуемых глаголов в истории английского языка связана с процессом граматикализации, а именно с деакузативацией и субъективацией. Древнеанглийский глагол с полной аргументной структурой в средне- и ранненовоанглийском языке становится одноаргументным непереходным рейзинговым глаголом, который не имеет внешнего аргумента и не назначает тета-роли.

**Ключевые слова:** аргумент, деакузативация, рейзинговая конструкция с субъектом, рейзинговой глагол, тета-роль.

**Introduction.** Raising has been an essential concern of generative syntax since it was first studied in the works by P. Rosenbaum, N. Chomsky, P. Postal and still continues to be an empirical focus of every comprehensive model [6, 7, 13, 15]. The analysis of this construction in each framework has relied on the most fundamental assumptions. In the 40 years raising still provides significant results necessary for analysis of generative syntactic models and attention to this construction has persevered through each significant paradigm shift in generative syntax especially due to the rise of the Minimalist Program. There is an increasing growth of interest among linguists of all-theoretical denominations in the causes and ways of subject raising construction (SRC) formation.

**The research goal** is to analyze the formation process of the argument structure of raising verbs in Early Modern English. **The object** of the paper is raising verbs. **The subject** of the paper is peculiarities of the argument structure of raising verbs.

**Results and Discussion.** SRC is a structure of secondary predication, namely the subjective with the infinitive complex. Its verb group is expressed by a compound verbal predicate which consists of the *seem*-type verb denoting evidentiality of the action and the infinitive expressing the action performed by the subject. From the perspective of X-bar theory, subject raising is an example of A-movement operation (the movement of a sentence constituent to A-positions marked by theta-roles, during which the element can not pass any of these positions). The subject moves from the position of its generation in the lower clause in the TP (Tense Phrase) to the position of the subject in the higher TP [6]. Raising verb or adjective in combination with the infinitive complement triggers subject raising from an infinitival clause to the left periphery of a sentence with SRC.

In the Middle and Early Modern English periods, grammaticalization of SRC takes place, whereby the verb with a full argument structure becomes a one-argument non-transitive verb that has no external argument and does not

assign a theta-role to its internal argument. According to these features this verb is defined as raising.

The nucleus of SRC is raising verb which must fulfill the following conditions: 1) the presence of secondary predication, 2) detransitivisation, 3) cognitive shift from a physical to mental process [4].

(1) *They seem to pity the lady* (Shakespeare, *Much Ado About Nothing*, p. 1447).

The raising verb *seem* in the sentence (1) is used with the infinitive complement *to pity the lady*, forms the structure of secondary predication (in the framework of generative grammar we define it as SRC) and expresses the meaning of probability. The subject *they* does not semantically relate to the predicate *seem* but it does to the infinitive complement. The predicate does not assign the theta-role to the subject and this sentence has next derivational structure (1'):

(1') [e seem [they to pity the lady]]

SRC is considered to be a functional identity at the level of f-structure with the raising verb which performs function of the predicate (PRED), assigns a theta-role to the infinitive complement (XCOMP) but does not assign any theta-role to its subject. This construction has the following representation (2):

(2) ( $\uparrow$  PRED = 'SEEM < (XCOMP) > (SUBJ)')

The subject of the main clause is identical to the subject of its complement clause due to the mechanism of functional control defined by the semantic meaning of the verb (3):

(3) ( $\uparrow$  SUBJ) = ( $\uparrow$  XCOMP SUBJ)

Though linguists define various mechanisms of grammatical changes such as reanalysis, analogy and metaphor, it is still difficult to explain how gradual semantic shift can influence and as a result restructure the syntax [11].

Subject raising verbs are synchronically markers of epistemic modality and express the speaker's attitude to the content of a proposition. Thus all of them

convey speaker's epistemic notions of possibility or probability. These verbs are speaker-oriented as their opinion correlates with the hearer and does not belong to second or third person. For instance sentence (5) compared to (4) is defective:

(4) *He appears to me to be satisfied.*

(5) \**He appears to her to be satisfied.*

There is a distinct difference between raising and epistemic modal verbs such as *may, might, should* etc. Raising verbs express the source of or grounds for the speakers and are considered to be evidential, for example:

(6) *At last, a little shaking of mine arm, And thrice his head thus waving up and down, He raised a sigh so piteous and profound As it did seem to shatter all his bulk And end his being* (Shakespeare, Hamlet, p. 442).

This example demonstrates the speaker's confidence based on their visual perception of the action, which is also emphasized by the auxiliary verb *did*. The raising verb *seem* expresses the meaning of evidentiality.

Most linguists claim that vision supersedes the rest of the categories in sensory evidence and it is the strongest source of knowledge which comes from our own eyes [8, 9, 10]. It is reflected in the language with the help of metaphorical process namely as-mind-as-body metaphor [16]. The semantic meaning change of raising verbs is involved in metaphorization as the transfer from a basic concrete meaning to a more abstract one. The extension to the cognitive domain is reflected in the expression of perception of not only physical objects but some events and propositions. Two clauses are combined to denominate the perception of a proposition [4]:

(7) *I see the problem and the problem is difficult.*

(8) *I see the problem, which is difficult.*

(9) *I see that the problem is difficult.*

(10) *I see the problem to be difficult.*

The next significant stage of raising verb subjectification is exclusion of the speaker from the sentence structure because only a particular speaker can

express their own thoughts and speculations about a proposition. Many languages demonstrate a connection between meanings of verbs "to see" and "to seem" thanks to a variety of active morphosyntactic processes. For example in Latin we observe this connection in passivisation of the verb "videre" (to see) when its passive form "videri" receives a new meaning (to be seen, to seem) [4]. Subjectification takes place due to the suppression of the external argument, which performs the semantic role of a perceiver. As a consequence, a two-place predicate becomes a one-place. This process can be illustrated schematically (11):

(11)

SEM STRUCTURE	X	Y	trans predicate
ARG STRUCTURE	<u>ARG<sub>1</sub></u>	ARG <sub>2</sub>	PRED
GF STRUCTURE	(ADJ)	SUBJ	GF PRED
WORD STRING	(by phrase)	subj	pred+passive

**Semantic structure** is a level where all relevant semantic distinctions demonstrate systemic correlates in the morphology or syntax are represented.

**Argument structure** is a level where a predicate syntactic valency is represented. **Functional structure** is a level where the syntactic functions (subject, object) of arguments and non-arguments are showed as value matrices. In addition grammatical features such as tense, aspect, mood, person, number are represented [4, p. 6].

A transitive predicate illustrated above (11) has two semantic arguments at the level of Semantic Structure. Passive morphology suppresses the highest argument and the second argument performs the subject function [2, 3].

In the process of subjectification of raising verbs there is a semantic bleaching of meaning of the verb; as a result the Agent and the Cause are combined at the Semantic Structure level in the process of *detransitivisation*. Semantic unit simultaneously provides information about the predicate at all levels. If the argument disappears at the Argument Structure level, then at the

Syntactic Structure level it functions as an adjunct. If the argument disappears at the Semantic Structure level it causes the semantic change of the predicate [4]. However, the condition for the presence of the subject in the sentence structure is still fulfilled, so the noun, which is not thematically related to the predicate, begins to function as a subject and this predicate becomes raising.

To study the subjectification of raising verbs, it is significant to analyse the change in the structure of the arguments from Old English to Early Modern English. For example, Old English verbs *byncan* (seem) and *gelimpan* (happen) are semantically similar to modern equivalents, but they have a different structure of arguments.

Another essential part of analysis of raising verbs is the Lexical Mapping Theory, according to which the thematic roles and grammatical functions relate to the intermediate level of representation, namely, the argument structure [14, p. 21]. We can illustrate the relationship between these levels schematically (Fig. 1):

<b>S-structure</b>	$\theta$	$\theta$	$\theta$	$\theta$	... $\theta$
<b>A- structure</b>	arg1	arg2	arg3	arg4	... arg <sub>n</sub>
<b>F- structure</b>	AF	AF	AF	AF	AF

Fig. 1 Mapping the levels of Semantic, Argument and Function Structures

Theta-roles represent participants of the action (Agent, Patient, Experiencer, Instrument, etc.) expressed by the verb. Such participants are in accordance with the arguments of the a-structure. The corresponding argument slot establishes the connection between the theta-role and the grammatical function of the argument. Argument functions of the verb are represented by the syntactic arguments chosen by the verb; therefore the argument functions are the subject (SUB), the object (OBJ), the secondary object, usually in the role of the Recipient (OBJ<sub>θ</sub>) and the locative argument (OBL<sub>θ</sub>).

To categorize the grammatical function, two features are used: 1) semantic limitation of the grammatical function (restriction); 2) the environment of the object (objecthood) [5]. The features  $[\pm r]$   $[\pm o]$  are the basis for the classification of argument functions (Fig. 2).

	-r	+r
-o	SUBJ	OBL $\theta$
+o	OBJ	OBJ $\theta$

Fig.2 Argument Functions Classification

According to this classification, the subject function is semantically unlimited and non-objective. Taking into account the features  $[\pm r]$   $[\pm o]$ , we distinguish the following levels of the argument structure [12] (Fig. 3).

arg1	arg2	arg3	arg4	...arg <sub>n</sub>
[-o] / [-r]	[-r]	[+o]	[-o]	[-o]

Fig. 3 Classification of Argument Structure Positions

Semantically, participants of the action are limited by the position of the arguments. The Agent is usually limited by arg1 [-o]. For example, in the Old English language the verb *þyncan*<sub>1</sub> has a two-argument structure arg1 [-o] and arg4 [-o], that is, the subject and the complement or *þyncan*<sub>2</sub> – arg1 [-r] and arg3 [+o], the subject and object (Fig. 4). The difference between them is determined by choice of the theta-role of the Experiencer and the positions of argument slots (arg<sub>n</sub>).

	Subject in the Dative Case (NP <sub>dat</sub> +verb+[that ...])	
	Experiencer	Proposition
<b>þyncan</b> <sub>1</sub>	arg1	arg4
	[-o]	[-o]
	subject	that-complement



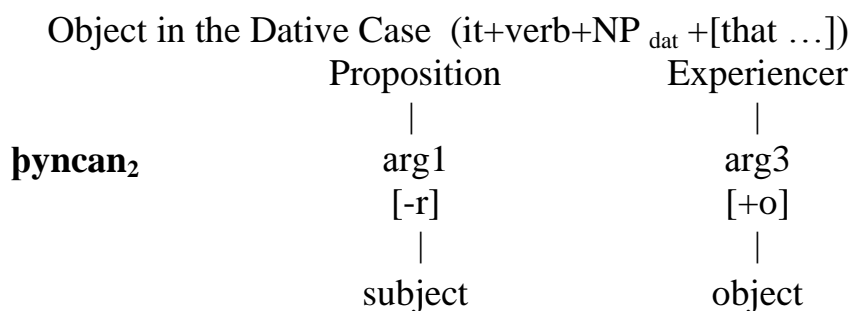


Fig. 4 Argument Structure of the Old English Verb *þyncan*

The verb *gelimpan*<sub>1</sub> has a two-argument structure arg1 [-o] and arg4 [-o], that is, the subject and the complement, and the argument structure of the verb *gelimpan*<sub>2</sub> contains only one argument arg1 [-r] that functions as a subject and does not have any theta-role of the Experiencer (Fig. 5).

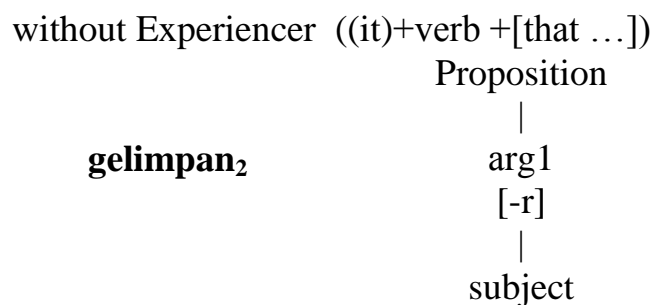
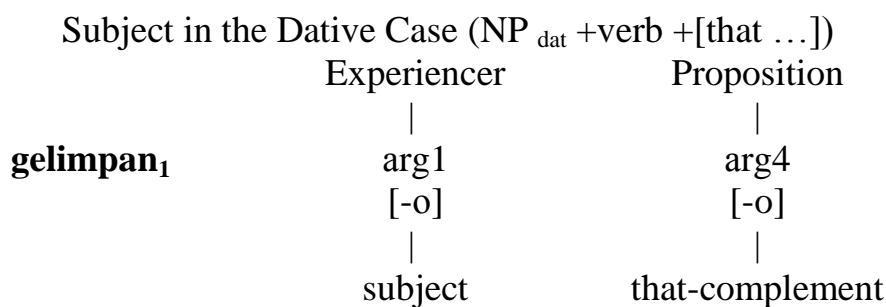


Fig. 5 Argument Structure of the Old English Verb *gelimpan*

Old English verbs are not considered to be raising, because they are used with the formal subject *it* and the Experiencer in the Dative Case in the propositional clause, for example (12):

- (12) *Wel geradlic hyt eac þingð us [þæt we herto gecnyttan þa epactas],*  
*well appropriate it also seems us.DAT that we hereto tied those epacts*  
*'It seems very appropriate to us that we tied the epacts to this'*  
 (Cobyrtf, ByrM 1[Baker-Lapidge]:1.2.291.403).

The verb *þingð* is used with the formal subject *hyt* and the Experiencer in the Dative Case *us* which performs the function of the object. This sentence is determined as *it* + *ADJ* construction, where *it* is the subject, a *ADJ* is the adjunct.

The argument structure of the Old English verbs differs from raising verbs. However, during this period, constructions such as *it* + *COMP* are used, where *COMP* is *that*-complement, in which the non-thematical subject coexists with the complement in the form of a clause, and the predicate has the features of a raising one. We make the assumption that if *it* + *COMP* constructions are typical of the Old English language, so raising predicates can be also used during this period in the raising and *it* + *subclause* constructions. To answer this question, it is necessary to analyze the sentences (13).

- (13) *Sumum menn wile þincan syllic [þis to gehyrenne],*  
*Some.DAT men.DAT will seem strange this to hear*  
*'To hear this must seem strange to some people.'*  
 (Coelive,+ALS [Maccabees]:564.5198).

In the sentence (13), the function of the subject of the infinitive clause is performed by the Experiencer in the Dative Case *sumum menn*. The predicate of the main clause *þincan* assigns the theta-role of the Experiencer to this noun phrase. Under this condition, this is a control construction, because predicates have only one position for arg1 [-r], which has no theta-role.

During the Middle English period, verbs *seem* and *happen* become the semantic equivalents of the verbs *þyncan* and *gelimpan*. At the end of this period, the verb *seem* is used in raising and *it* + *subclause* constructions, for example:

- (14) *for he **semed** [to be ryght wyse]* (Malory, Morte Darthur, 34.1098).  
 (15) *Madam, hit **semyth** by your wordis [that ye know me]* (Malory, Morte Darthur, 658.4557).

The use of the verb *happen* in raising and *it + subclause* constructions is observed only in the Early Modern English language, for example (16, 17), and has the following structure of its arguments (Fig.6):

(16) *And whan he **happeneth** [to rede or here any fable or historie]* (Elyot, The Boke named the Gouvernour, 30.11).

(17) *in them it **hapneth** [that one in an other as moche deliteth as in him selfe]* (Elyot, The Boke named the Gouvernour, 161.180).

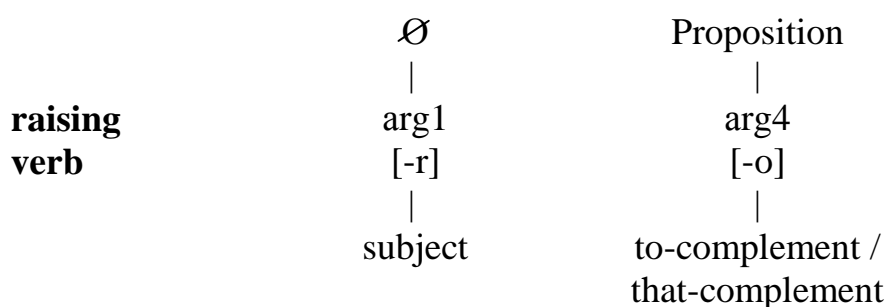


Fig. 6 The Argument Structure of Early Modern English Raising Verbs

Raising verbs are used with SUBJ, to which they do not assign any theta-role, and with an argument that performs the role of the proposition and is expressed by COMP (that-complement) or XCOMP (infinitive complement). The structure of the arguments of individual verbs may differ from the general one, for example, the verb *seem* has an additional arg4 argument [-o] (Fig. 7).

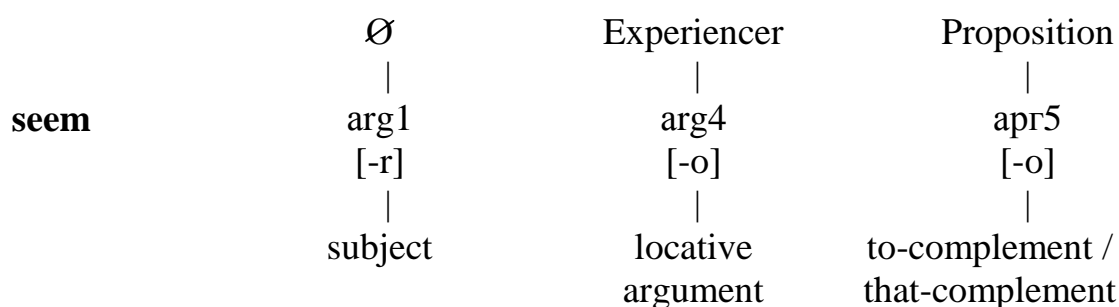


Fig. 7 The Argument Structure of Raising Verb *Seem*

In Early Modern English the verb *seem* in accordance with its argument structure is used in the raising construction (38% out of 2100 study samples), *it + subclause* construction (17% out of 950 additional study samples) and as a link-verb (45% out of 2500 additional study samples):

(18) *He seems [to carry about with him the Fury of the Lion]* (Preston, Anicius Manlius Severinus Boetius, 173.486).

(19) *It seems to me [that the Athenian ideal - that of strong intellectual capacity - is left out of sight altogether]* (Benson, The Schoolmaster, 55.182).

(20) *And [to love God] seemed to him a presumptuous thing,* (Burnet, Some passages of the life and death of the Right Honourable John, Earl of Rochester, 53.114).

Sentence (18) is an example of the subject raising construction, (19) is it + subclause construction and the verb *seem* functions as a link-verb in sentence (20).

**Table 1**

**Frequency of SRC use with a verb *seem* in the history of the English language**

Period \ Quantity (%)	Link-verb	<i>it + subclause</i> construction	SRC
Middle English	35%	42%	23%
Early Modern English	45 %	17%	38%
Modern English	39%	3%	58%

The data from the table illustrates the gradual increase in the use of SRC, comparing with its equivalents, subordinate sentences, during the history of the English language. According to the British National Corpus, the percentage of SRC use is the highest (58%) in Modern English. It is obvious that the difference between constructions is determined by the nature of the human thinking process in different historical epochs and by the peculiarities of the syntactic structures of languages at different stages of their existence. The specific feature of historical changes is that languages develop from concrete to abstract. O. Potebnia argued if the ability of the language to convey the rational foundations of human thought becomes more developed, the language ability to express the sensory perception is also becomes more significant. The

development of any language improves its ability to convey more adequately and diversely the whole complex range of meanings, categories, and relationships [1].

As mentioned above, in the Early Modern English language SRC is also used with raising verbs in a passive form, for example:

(21) *She is said [to have bined the death of her husband]* (Montague, Correspondence of the family of Hatton,1,219.78).

(22) *For the very reason why independence is sought is that it is judged good, and so power also, because it is believed [to be good]*(The consolation of philosophy of Boethius,107.164).

In the sentence (21), *she* is the thematic argument of the predicate *be the death of her husband*, and is not thematically related to the predicate *be said*, in the sentence (22) *it* is a thematic argument of the predicate *be good*. Taking this into account, the argument structure of passive raising predicates has the following form (Fig 7):

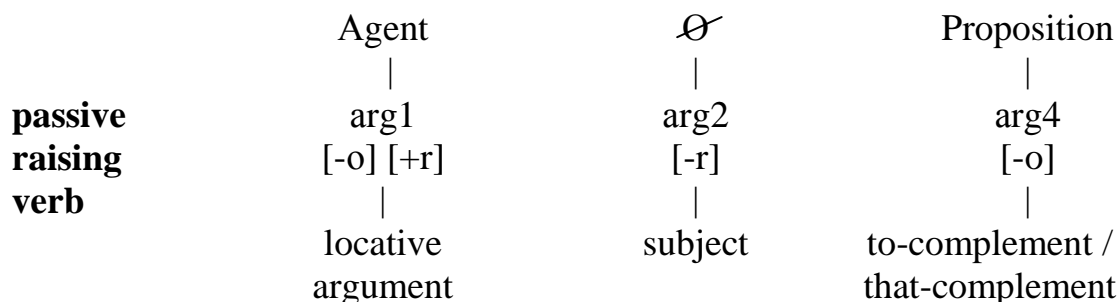
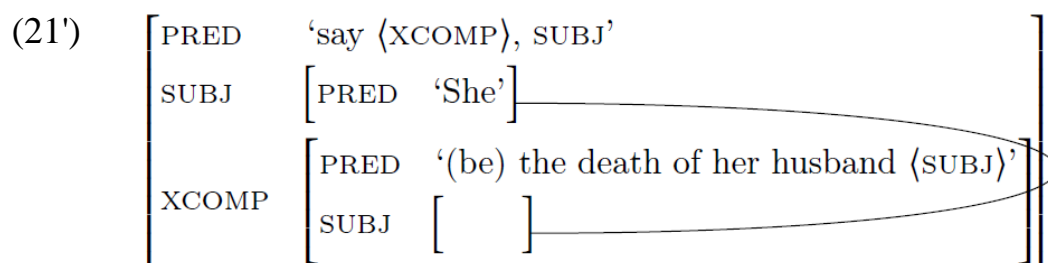


Fig. 7 The Argument Structure of Passive Raising Verbs

Passive raising verbs, for example, *be said*, *be believed*, have a three-argument structure arg1 [-o], arg2 [-r] and arg4 [-o]. Arg1 [-o] receives a [+r] features in the structure of all passive predicates and as a result, performs the function  $OBL_{agent}$ , arg2 [-r] functions as  $SUBL$  and arg4 [-o] as  $XCOMP$  [12]. The f-structure of the sentence with passive raising verb is illustrated in the scheme (21'):



**Conclusions.** Consequently, a raising verb is the main semantic and syntactic nucleus of the SRC. The emergence of raising verbs in the history of English is associated with the processes of grammaticalization and subjectification, during which we observe the transition from the concrete semantic meaning of the verb to the abstract one. Raising verbs in the process of subjectification acquire the evidential meaning. The process of changing the syntactic characteristics of the studied verbs demonstrates its influence on the semantic meaning of the verb, which leads to a change in their argument structure and, as a result, to the formation of the subject raising construction. Unlike previous periods, the Early Modern English raising verbs are used with a subject, to which they do not assign any theta-role, and an argument that functions as a proposition. The results of the study reveal the prospects for their further comparative study in Modern English.

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