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SEMANTIC FACTOR IN MODELING VERB TENSES IN UZBEK LANGUAGE

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Abstract

This article provides information about the role of the semantic factor in modeling verb tenses for Uzbek language corpora. Determining the relation of speech to time is important in the process of morphological analysis. It is known that space and time are the fundamental form of existence, and any information, action, situation has signs of time and space. Understanding the relationship of information to time is an important condition for understanding changes in the world. Time determines the time of occurrence of certain events and situations, and thus they are arranged in sequence in memory, as well as how long they lasted. The need to ensure the automatic implementation of analyzes of the relationship of information to time increases the practical importance of the issue of annotating grammatical forms of tense.

Keywords Verb, tense, past tense, present tense, future tense, Uzbek language, model, moment of speech, corpus, annotation, tagging, discourse meaning, transition of tense meaning.

INTRODUCTION

In the world, scientific directions related to the application of information technology to linguistics began to develop from the 40s of the 20th century. As a result of this, such scientific directions as computer linguistics, corpus linguistics, and machine translation were created. The need to develop a formal grammar for the analysis systems of these directions has arisen. By the 50s of the 20th century, automatic morphological analysis systems were developed and began to be used in the fields of natural language processing and machine translation. Determining the relation of speech to time is important in the process of morphological analysis. It is known that space and time are the fundamental form of existence, and any information, action, situation has signs of time and space. Understanding the relationship of information to time is an important condition for understanding changes in the world. Time determines the time of occurrence of certain events and situations, and thus they are arranged in sequence in memory, as well as how long they lasted. The need to ensure the automatic implementation of analyzes of the relationship of information to time increases the practical importance of the issue of annotating grammatical forms of tense.

In world linguistics, at the end of the 20th century, the creation of language corpora and their linguistic annotation became one of the urgent issues. This put the creation of programmatic and linguistic support for tagging words and grammatical forms for each language on the agenda. As a result, language corpora containing millions of words were created by the beginning of the 21st century. Most of them have the ability to

analyze what time the information in the corpus refers to according to grammatical forms representing time and time expressions. Today, one of the most important tasks for the world corpus linguistics is to determine such issues as the transfer of verb tenses, whether it refers to another tense according to the context, in automatic analysis.

The main part

In many researches in world linguistics, it has become a tradition to study time as a unity of grammatical, lexical, syntactic tools that serve to realize real time in language – as a whole temporal category.

H.Reichenbach explained for the first time that there are three points on the time line, and different time meanings are expressed according to the sequence of these points [Reichenbach H., 1947. P. 287–298]. He knows that the problems in explaining the meaning of the tenses close to each other (for example, Simple past and Present perfect) in grammar books were the result of not distinguishing between three points of time. The scientist emphasizes the following as three points:

1. Point of speech – S.

2. Point of event – E.

3. Point of reference – R.

I.Kormushin, who specially studied the verb tenses in Altai languages, distinguishes absolute and relative tenses in the system. According to the scientist, the past, present, and future tenses are absolute tenses, and relative tenses arise from their relationship with each other. In particular, three relative tenses are formed from the absolute past tense: the past tense relative to the past tense, the present tense relative to the past tense, and the future tense relative to the past tense. In the same order, three relative tenses are formed from the present and future absolute tenses. Thus, he recommends a system of three absolute and nine

relative – twelve tenses in all – for the Altai languages [Кормушин И., 1984. С. 6–7]. In our opinion, although this approach of I.Kormushin is based on systematicity, it was not widely popular because it could not be fully applied to all Altaic languages. Because some of the relative tenses are created artificially, they do not have their expression in all languages.

In world linguistics, this issue is solved by dividing verbs into aspectual groups. In Uzbek linguistics, research on verb tenses has not paid special attention to this issue. Only the issue of the verbs yotmoq, yurmoq, turmoq, o'tirmoq with the form -ib expresses the present tense in a unique way. According to the lexical meaning, we have divided the verbs that have specific features in taking tense forms into the following semantic groups:

1. Verbs expressing the final result of a momentary action-state: topmoq, yo'qotmoq, payqamoq, qoqilmoq, chertmoq, uyg'onmoq, tanimoq, chaqmoq, sinmoq.

2. State verbs expressing continuity: yurmoq, turmoq, yotmoq, o'tirmoq

3. Verbs expressing state: sevmoq, bilmoq, xursand bo'lmoq, ishonmoq, nafratlanmoq.

4. Verbs expressing physical action: bormoq, ketmoq, yurmoq, chopmoq, qaytmoq.

Verbs expressing momentary actions do not have the meaning of duration. They represent short momentary actions indicating a certain point on the axis of time and are not used with continuous tense forms. However, polysemantic verbs can take these forms in one meaning without taking the continuous tense form in another meaning. For example, the verb topmoq with the meanings of "1 To meet a lost, generally sought (in search) thing or person. 2 To catch suddenly" [Ўзбек тилининг изоҳли луғати. IV жилд. 2008. – Б.148] doesn't use in continuous tense. But it accepts continuous tense forms with the meanings of "3 To discover

as a result of research. 4 Determine the unknown. 5 In general, to have, to achieve as a result of work, some reason, etc." [Ўзбек тилининг изоҳли луғати. IV жилд. 2008. – Б.148-149] which is noted in the dictionary. In particular, the verb topmoq is used in the present continuous tense in 839 places in the text text of the Educational Corpus, and in the documents it represents one of the 3rd, 4th, 5th meanings in the explanatory dictionary. For example: Ijtimoiy tarmoqlar orqali hokimlik va boshqaruv idoralariga yo'llanayotgan murojaatlar o'z yechimini topyaptimi? O'quv-seminarda shu kabi masalalar muhokamalar markazida bo'ldi. (xs.uz). It should be noted separately that when these types of verbs are used in the negative form, disappears the meaning of a short moment, instantaneous action and acquires duration. Therefore, they can accept the present

continuous tense forms with the negative form. For example: O'zimizda ham savodli mutaxassislar juda ko'p, ularni hech kim payqamayapti. (kun.uz).

The fact that the verbs turmoq, yurmoq, yotmoq, o'tirmoq with the -ib form mean the present tense is related to their lexical meaning, and they express the meaning of duration when they are state verb and auxiliary verb. When expressing the meaning of action, it means the past tense with the form -ib. We have analyzed the meaning of tense understood from the cases of these verbs with the suffix -ib in the texts of the educational corpus. The results of the analysis are shown in Table 1 [www.uzschoolcorpora.uz. The results were obtained between February 5 and February 12, 2022].

Table 1

№	Verb form	With the meaning of the past tense		With the meaning of the present tense	
		Amount	*In percent*	*Amount*	*In percent*
1	yur+ib+personality	34	2%	1509	98%
2	tur+ib+ personality	45	0,2%	24183	99,8%
3	o'tir+ib+ personality	4	0,5%	849	99,5%
4	yot+ib+ personality	12	0,8%	1427	99,2%
Total		95	0,3%	27968	99,7%

It can be seen from the table that the given verb forms are rarely used in the meaning of past tense.

The study of the influence of the verb lexical meaning on the expression of the meaning of the tense explains the processes associated with the fact that not all verbs can equally perceive all forms of the tense, as well as the inability of certain verbs

to realize or realize the meaning of a certain tense with grammatical forms. There are peculiarities in the tense relationship of verb semantics, in particular, in the relationship of certain meanings of polysemantic verbs to the tense. This feature is important from the aspects of accepting/not accepting the grammatical forms of the continuous

tense, expressing the present or future tense with the form -a (-y).

The present tense serves as a basis in defining other tenses as it corresponds to the moment of speech. Grammatical forms of present tense not only express the duration of the action in a dynamic nature, but also refer to cases that, in general, are practiced in the moment of speech in a static way, denoting the constant characteristics of the subjects. Below, we focus on the annotation of the -a/-y form, which has the highest frequency of use among both present and future tense forms. The form of the present tense -a/-y expresses actions that are active at the moment of speech, that are repeated, statically exist, as well as express the permanent characteristics of subjects, usual procedures. When the meaning of the present tense is expressed with the form -a/-y, the meaning of the state and activity is understood rather than the meaning of the action from the base of the verb.

When annotating the present tense meaning of the form -a/-y in the verb structure, it is necessary to pay attention to the homonymic and polysemantic features of this form. -a/-y can be used to form the present tense, the future tense, the lexical form of the verb, the adverbial form of the verb.

Personality suffixes act as a filter in differentiating the formation of the form -a/-y in the adverbial form or present tense form, as well as in the case of the formation of the imperative-demanding mood of the -y. If -a/-y is followed by personality suffixes, then -a/-y is present tense, otherwise -a/-y is adverbial form or -y is imperative.

If $F+\downarrow N+\downarrow BB+y+Sh2$, then "y = Z2(1,al1)".

If $F+\downarrow N+a+Sh2$, then "a = Z2(1,al2)".

When we analyzed the use of the -a/-y form as a tense suffix in the texts of the educational corpus, we saw that it was used mostly for the meaning of the present tense (75%). The meaning of the future tense is mainly expressed under the influence of special lexical units referring to this tense in the sentence (25%). So, quantitatively, pay attention to the priority of the expression of the meaning of the present tense through the form -a/-y, and in modeling connect the expression of the meaning of the future tense with -a/-y to special keywords that refer to this tense. M. Hakimova includes the lexemes ertaga, endi, endilikda, endigina, keyin, keyincha, soʻng, soʻngra, halizamon among future tense adverbs . Also, lexemes with the meaning of time, such as yaqinda, tezda, tez orada influence the future tense meaning of the form -a/-y. By summarizing them, it is possible to form a list of units referring to the future tense (KZIQB).

Units referring to the future tense (KZIQB)=ertaga/endi/ endilikda/endigina/keyin/keyincha/soʻng/soʻngra/halizamon /yaqinda /tez orada/ tezda.

If $KZIQB+F+\downarrow N+\downarrow BB+y+Sh2$, then "y=Z3(1,al1)"

If $KZIQB +F+\downarrow N+a+Sh2$, then "a=Z3(1,al2)"

As a result of adding the tense form -a to some verb bases, it occurs homonymy with another verb lemma. In the following 25 verbs in the "Explanatory Dictionary of the Uzbek Language", the program may also make a mistake in determining the tense form as a result of incorrectly defining the verb lemma: bezadi, buradi, enadi, oshadi, qonadi, sinadi, suyadi, soʻradi, taqadi, tiladi, tugadi, tutadi, tuyadi, tuzadi, tushadi, toʻladi, unadi, uvaladi, uyaladi, uzadi, yaraladi, yutadi, oʻradi, oʻtadi. It is impossible to distinguish past tense form -di (also meaning personality) from personality form -di (added afer -a), which creates homonymy to such verbs without the help of context. This problem can be solved with the help of a semantic analyzer depending on the possibility of combining the verb

lemma with other tokens in the context.

CONCLUSION

The meaning of "momentary" in verbs expressing the final result of a momentary action is contrary to duration. Therefore, such verbs are not used with continuous tense forms. Verbs expressing continuity do not accept grammatical forms of the continuous tense because they have the meaning of "continuity" in their semantics. The verbs expressing the meaning of a static state mainly express the present tense with the form -a (-y), while the verbs expressing the physical movement mainly express the future tense with this form. In the Uzbek language, it is a very common phenomenon that a grammatical form belonging to one tense expresses another tense under the influence of context, but in automatic annotation, the program interprets the grammatical form with the meaning of the tense given in the classification according to the rule. As a result, an error is observed in the annotation. Relying on the results of statistical study and descriptive study of different meanings of grammatical forms expressing tense in corpus texts gives relatively reliable information about the form. The analysis showed that it is possible to partially solve this problem by identifying commonalities in examples related to the transition of time and developing their models on this basis. However, there are cases where one tense form means another tense without being tied to standard constructions, arising from the content of the whole text, which is very difficult to cover within the framework of specific models.

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