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VERB ASPECT, ALTERNATIONS AND QUANTIFICATION¹

Abstract

Abstract: In this paper we are briefly discuss the nature of Bulgarian verb aspect and argue that the verb aspect pairs are different lexical units with different (although related) meaning, different argument structure (reflecting categories, explicitness and referential status of arguments) and different sets of semantic and syntactic alternations. The verb prefixes resulting in perfective verbs derivation in some cases can be interpreted as lexical quantifiers as well. Thus the Bulgarian verb aspect is related (in different way) both with the potential for the generation of alternations and with the prefixal lexical quantification. It is shown that the scope of the lexical quantification by means of verbal prefixes is the quantified verb phrase and the scope remains constant in all derived alternations. The paper concerns the basic issues of these complex problems, while the detailed description of the conditions satisfying particular alternation or particular lexical quantification are subject of a more detailed study.

Keywords: Slavic verb aspect, semantic and syntactic alternations, natural language quantification.

1. Introduction

The three topics — Slavic verb aspect, semantic and syntactic alternations and natural language quantification are controversial and of great interest in linguistics. In this paper we are briefly discuss the nature of Bulgarian verb aspect and argue that the verb aspect pairs are different lexical units with different (although related) meaning, different argument structure (reflecting categories, explicitness and referential status of arguments) and different sets of semantic and syntactic alternations.

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The diverse status of alternations reflecting in their subdivision in three major groups (diathesis, semantic alternations and pure syntactic alternations) is sketched in order to show that the alternations productivity is closely dependent on the verb aspect. The verb prefixes resulting in perfective verbs derivation in some cases can be interpreted as lexical quantifiers as well. Thus the Bulgarian verb aspect is related (in different way) both with the potential for the generation of alternations and with the lexical quantification by means of verbal prefixes. It is shown that the scope of the lexical quantification by means of verbal prefixes is the quantified verb phrase and the scope remains constant in all derived alternations. The paper concerns the basic issues of these complex problems, while the detailed description of the conditions satisfying particular alternation or particular lexical quantification are subject of a more detailed study.

2. Bulgarian verb aspect

Each Bulgarian verb pertains to either the perfective or the imperfective aspect. Certain verbs of either aspect have no corresponding counterparts; there are also 'dual aspect' forms — homographs, which can express a completed or progressive action depending on the context (Gramatika 1983 among others). The groundlessness of the term *secondary imperfective* is pointed out (as it is not clear whether primary imperfective verbs are non-derivative verbs or verbs derived from the primary perfective verbs without a prefix (*rodya* 'to give birth' — *razhdam* 'to be giving birth'); or derivatives of the prefixed perfective verbs, which have no correspondent imperfective verb (*kupya* 'to purchase' — *zakupya* 'to have purchased' — *zakupuvam* 'to have been purchasing') (Bach et al. 1995), whereby the term *grammatical iteratives* was suggested. Various references have been made to the iterative nature of the so called secondary imperfective verbs (Bach et al. 1995, Ivanchev 1976, Kutsarov 1997, 2007). We assume that the true verb aspects shall be the *perfective* and the *imperfective*, whereas the *iterativity* covers a broader meaning, which takes its aspectual rendition depending on the specific context (Kutsarov 1997, 2007). The secondary imperfective expresses a recurrence of a complex action with no evidence for temporal or spatial boundaries, except for the so called present dramatic tense, where it conveys an iterative action and can be treated as a morphological category specific for the perfective verbs. Following some well known classifications, the perfective, imperfective and the secondary imperfective can be characterised by virtue of the categories of +/- complexity, +/- process and +/- iterativity in the following manner:

1. a. perfective aspect: + complexity, — process, — iterativity
- b. imperfective aspect: — complexity, + process, — iterativity
- c. secondary imperfective aspect: + complexity, — process, + iterativity
- d. secondary imperfective aspect (present dramatic tense): + complexity, — process, — iterativity

Both Bulgarian and Slavic linguistics hold two points of view as to whether the perfective and imperfective verbs have to be considered as words with different

lexical meanings, which have been derived as a result of word formation (Andreychin 1944, Kutsarov 1997, 2007, Nitsolova 2008) or as different forms of the same word (Gramatika 1983, Maslov 1982, Stankov 1980)². Two types of word formation patterns can be distinguished in the derivation of the Bulgarian perfective and the imperfective verbs — prefixing and suffixing:

- derivation of the perfective verb from the primary perfective or the primary imperfective by prefixing; derivation of the imperfective verb from the primary perfective by suffixing;
- derivation of the imperfective verb from the imperfective by prefixing; derivation of the secondary imperfective verb from a prefixed imperfective by suffixing (the verb pairs built by suffixing are commonly referred to as aspectual pairs).

According to the so called neo-traditionalists in Slavic linguistics (Kutsarov 2007) and Isatcenko 1962, as per (Aalstein and Blackburn 2009), suffixing is an inflexion mechanism and verbal pairs such as *kupya* ‘purchase’ — *kupuvam* ‘to be purchasing’ are treated as forms of the same verb with no difference in lexical meaning, whereas prefixing is a derivational mechanism and verbs such as *kupya* ‘purchase’– *otkupya* ‘redeem/pay ransom’ function as individual lexemes. Some prefixes (called ‘empty’ prefixes) only change the verb aspect, but not lexical meaning, for instance *pisha* ‘to write’ — *napisha* ‘to have written’, while most prefixes are derivational morphemes, which change both lexical meaning and aspect (Masson 1914, after Nitsolova 2008). According to the neo-traditionalists, the prefixes forming aspectual verbs are never empty, as the expression of complexity per se bears additional meaning and is, thereby, a lexical change (Aalstein and Blackburn 2009). The tradition in Bulgarian linguistics is adhered to (Kutsarov 1997, 2007) — although contradictory views are upheld — that verbs of a different aspect are individual lexemes, as the duplication of verb forms exists for most morphological categories but the synthetic paradigms differ: the perfective verbs do not form present active participles, verbal adverbs and negative imperative forms. Therefore, a uniform approach is applied to interpret verbs of opposite aspect formed by “empty” or lexical prefixing and to aspectual pairs formed by suffixation: both cases are considered to express different lexical meaning. Additional arguments to the fact that aspectually different verbs are different lexemes, describable with separate explanatory definitions, are that the verb aspect reflects the differences in the syntactical realisation of arguments — categories, explicitness, referential status; the collocation restrictions for adjuncts; and the sets of acceptable alternations.

- (2) a. Shte pishem (**pismo** |) (**dva chasa** | *za dva chasa), koeto shte izpratim v Pentagona chrez vremennia poslanik na USA v Sofia³.

We will write (**a letter** |) (**for two hours** | *in two hours) and send it to the Pentagon via the temporary US Ambassador to Sofia.

‘transfer information about someone or something in writing’

²A detailed survey is drawn by Kutsarov (1997).

³The examples are from the Bulgarian National Corpus.

- b. Shte napisha (**pismo** | *) (*dva chasa | **za dva chasa**) **na redaktora an Tayms**.
 (*For two hours | **in two hours**) I will write (**a letter** | *) **to the editor of the Times**.
 ‘transfer to someone information in writing about someone or something’.
- c. Organizatsiyata na Sofiyskiya maraton beshe tolkova losha, che dori ne mi se pisheshe (*mi se napisheshe | *mi se napisvashe) za tova.
 The Sofia marathon was so poorly organised that I didn’t even feel like writing (*feel like having written | *feel like having been writing) about it.
 ‘intention to transfer to someone information in writing about someone or something’

The comparison is drawn between the aspectual pairs, where the imperfective aspect is formed by prefixing other perfective or imperfective verbs.

3. Verbal alternations

In most general terms, alternations are the changes in the realisation of arguments in reference to a basic neutral structure. The alternations are defined as the correspondence between the participants in the situation described by the predicate (semantic arguments, which play semantic roles and correspond to core elements) and noun phrases in the sentence, which couple with the valences of the predicate (syntactic arguments), the syntactic function of which is manifested by morphological or syntactical means (Melchuk 1998, Melchuk and Holodovich 1970). A terminological distinction is made between diatheses and alternations (semantic and syntactic) depending on whether they result or not in a new lexical meaning, whereas ‘alternations’ is the generic term (Koeva 2007, 2008). Verbal alternations, as described by Beth Levin (1993), do not comprise a homogeneous class. They can be classified in several groups (Koeva 2007, 2008):

— Semantic alternations, referred to as ‘diatheses’ (alternate sequence of verb meanings, while the semantic relation of the subject in the neutral diathesis is reduced)

- (3) a. Poaro si spomni svoyata parva sreshta s **misis Foliat**, kogato ya vidya da rezhe s gradinarskite nozhitsi kloncheta ot edin hrast v gradinata.
 (Neutral diathesis)
 Poirot remembered his first meeting with **Mrs. Folliott**, when he saw her in the garden, shearing down the twigs of a shrub.
 ‘split something into parts with a cutting tool’

The source structure is a two-place source predicate with syntactic arguments: NP subject (person), NP complement (object), PP complement (a part of the object) and PP₂ complement (instrument).

- (3) b. Pod neya **masloto** mozhe da se rezhe s nozh. (Middle diathesis)
 The **butter** beneath can be sliced with a knife.
 ‘a certain substance yields itself to splitting with a cutting tool’

The derived structure is typified by removing the source subject; a change in the syntactic function of the source NP complement; a change of the source verb lemma; loss of transitivity and verb paradigm reduction of the derived predicate.

- (3) c. **Nozhat** rezheshe **vazhetata** otchayvashto bavno. (Instrumental subject)
The knife was cutting through **the ropes** with despairing slowness.
 ‘something operates as a cutting tool’

The derived structure is typified by removing the source subject; a change in the syntactic category and the syntactic function of the original PP₂ complement and verb paradigm reduction of the derived predicate.

— Semantic alternations (transformating semantic relations)

- (3) d. Te ozhiveno razgovaryaha, kato si rezheha **parcheta ot mesoto**.
 They were talking busily while slicing **cuts of the meat**.

The derived structure is typified by a change in the syntactic category and the syntactic function of the source NP complement and PP complement.

- (3) e. Az sam zamislila ili neshito s kayma, ili klasikata yaytce i sirene, mozhe bi praz, che **luk** ne **mi se rezhe**.
 I will resort to either minced meat, or the classical combination of eggs and cheese, and leeks probably, as **I** don’t feel like cutting **onions!**

The derived structure expresses a change in the semantic role of the source subject; a change in the syntactic category of the source subject; a change in the syntactic function of the source subject and NP complement; a change of the source verb lemma; loss of transitivity and verb paradigm reduction of the derived predicate.

— Syntactic alternations (affecting exclusively the syntactic structure)

- (3) f. **Asfaltat** e ryazan prez dvadeset metra zaradi novoto stroitelstvo.
The asphalt pavement was streaked with cuts every twenty metres because of the new buildings.

The derived structure expresses a change in the syntactic function of the source subject; a change in the syntactic category and function of the source NP complement; a change of the source verb lemma; loss of transitivity.

Unambiguous classification criteria were defined for (Bulgarian) alternations, based on the analysis of the syntactic realisation of the noun phrases: reduction of the semantic relation of the subject in the source structure, alternation of the semantic relations of the complements of the source structure, alternation of the syntactic categories and the grammatical functions of the subject and the complements of the source structure, reduction in transitivity, a derivational relation between the source and derivative verb lemma (Koeva 2007).

Diatheses and alternations are regular alternate occurrences: where the neutral source structure satisfies certain conditions, the possible alternate occurrences can be predicted. Considering the aspectual pairs as separate lexical units pre-determines the various sets of diatheses and alternations typical of perfective and imperfective verbs.

4. Lexical quantification

The quantification means in natural languages can be divided in two types: D-quantification and A-quantification (Bach et al, 1995, Partee 1995). D-quantifiers (*every, most*) are a constituent of the noun phrase and can vary in their scope of application. A-quantifiers (*usually, always, in most cases*) are a constituent of the verb phrase and can also vary in their scope of application. “Lexical” quantification, in the sense of Partee, is a type of A-quantification, “where an operator with some quantificational force (and perhaps further content as well) is applied directly to a verb or other predicate at a lexical level, with (potentially) morphological, syntactic, and semantic effects on the argument structure of the predicate” (Partee, 1995: 559). Some of the prefixes for forming verbs of the perfective aspect have the same function as the lexical quantifiers. Distinction is made between internal (directional and locational) and external (iterative and inverse) prefixes (Di Sciullo 1997, 1999), pointing out that internal prefixes, unlike external ones, have a capacity to change the telicity of the event. A range of distinctions between internal and external prefixes was listed, as follows: external prefixes precede internal ones; unlike internal prefixes, external ones may occur repeatedly and simultaneously; unlike external prefixes, internal ones may influence the argument structure; internal prefixes may affect telicity, whereby they cannot be affixed to a telic predicate, and, vice versa, external prefixes do not affect telicity. This allows for a different interpretation of ‘empty’ prefixes: they are internal and their role is to alter the telicity of the action, whereby, they bring forth a change in the argument structure.

Let us consider the prefix *na-* in the formation of perfective verbs in the following examples and meanings (external and internal prefixes can be homonymous).

- (4) a. Spomnih si denya, v koyto **napisah** pismoto.
I remembered the day, when I wrote the letter.
- b. Samo chakay malko da se **napiem** s chay.
Just wait a bit, until we have had our share of tea.
- c. Nyakoy den shte se **napisha** na pisma.
Some day, I will indulge myself in writing letters.

In the first example *na-* is an internal prefix, which changes the telicity of the action ‘*write out in full*’. In the second and third examples, *na-* is an external prefix combined with a *se* clitic, with the meaning of ‘*to do something until fully satisfied with/indulged in it*’.

Another frequently quoted example is that of the prefix *po-* with the meaning of ‘*somewhat/to a certain extent*’ and the prefix *pre-* with the meaning of ‘*do to an excessive degree/overdo*’.

- (5) a. Otidoh v kabineta, reko da **popisha** edin chas.
I went to the office and decided to write for about an hour.
- b. V momenta sam **preyala** s chereshi.
I’ve just overeaten on cherries.

The proof that external prefixes play the role of lexical quantifiers is that the meaning ‘*somewhat/ to a certain extent*’ may be expressed by a synonymous ad-

verb, whereas the meaning ‘do to an excessive degree/overdo’ can be rendered by a quantifying adverb.

- (6) a. Otidoh v kabineta, rekoh da **popisha** malko | *mnogo | edin chas.
I went to the office and decided to write for a while | *extensively | for one hour.
- b. V momenta **sam preyala** malko | mnogo s chereshi.
I’ve just overeaten a bit | a lot on cherries.

The quantificational power of a prefix can be proved by the constraints over the quantifiers that occur in its scope — they are adverbials with similar semantics i.e. the prefix with the meaning ‘in high measure’ is compatible with expressions of measure or quantity, such as adverbial quantifiers ‘a lot (of)’, ‘a few’ etc, while the prefix with the meaning ‘in low measure’ combines only with adverbial ‘a few’. There are not such constraints in the respective sentences with verbs without quantification prefixation.

External prefixes may precede internal ones or not, i.e. they can be affixed directly to the base. In the case of internal prefixes, the telicity and the restrictions in argument structure are changed:

- (7) a. Imah ideya da popisha, malko, tazi vecher.
I had an idea to write, for a while, this evening.
- b. I az shtyah da **ponapisha nyakoya i druga knizhka**.
I could also have written a book or two.

The first sentence does not require a mandatory explication of the object, as in the instance of ‘write’, whereas in the second sentence in Bulgarian, it is necessary to render the object explicitly, which is a restriction imposed by the internal prefix *na-*, and not by the external one.

Therefore, the following distinction can be made for Bulgarian verb prefixes: certain prefixes function as lexical quantifiers, they are external, they are either directly affixed to the verb base or to the internal prefix, if any. Lexical-quantifier prefixes also change the meaning of the verb in a certain manner, but do not change the telicity and Aktionsart of the verb. Thereby, the argument to term them ‘lexical’ is their resemblance to the function of the manner adverbials to contribute to the meaning, when attached to the verb group.

The most reliable test whether a certain prefix is a lexical quantifier is its capacity to collocate with adverbs of the same type, as the relevant lexical quantification.

- (8) a. Pya **malko**, pochaka, poslusha, posle pya **oshte malko**.
He/she sang **for a while**, then waited, listened, then sang **a bit more**.
- b. Popya, pochaka, poslusha, posle **popya oshte malko**.
He/she sang for a while, then waited, listened, then sang **some more**.

With respect to changes in the argument structure, both options are possible in Bulgarian: internal prefixes change the argument structure in a certain manner, whereas external ones do not. Some external prefixes also tend to change the argument structure, which means that certain prefixes can trigger both changes in the telicity and function as lexical quantifiers.

- (9) a. Yam torta v nedelya.
I eat cake on Sundays.
b. Preyadoh s torta v nedelya.
I stuffed myself with cake on Sunday.

In conclusion, all verb prefixes tend to change the meaning in various manners: some change only the telicity (*pisha* ‘to write’ — *napisha* ‘to have written’), some change both meaning and telicity (*pisha* ‘to write’ — *dopisha* ‘to write out in full’), some change the lexical quantification and telicity (*yam* ‘to eat’ — *preyam* ‘to overeat’), some only change the lexical quantification (*napisha* ‘to have written’ — *ponapisha* ‘to write to some extent’).

Lexical quantification induced by verb morphology in Slavic languages is distinguished by several important properties (Filip 1993, 1996). It is selective, directed at a particular argument or particular arguments. The impact of prefixes as lexical quantifiers in Slavic languages is limited to the local domain of a given verbal predicate. It mainly concerns variables introduced by obligatory arguments: subject and direct object. The scope of other lexical quantifiers on contrary may differ: Lexical V-operators in Slavic languages function as lexical A-quantifiers over episodic predicates and their arguments. They bind the variable introduced by the Incremental Theme argument, and possibly also the event variable. If there is no Incremental Theme argument, quantification is directed at the event variable alone; if there is neither, quantification is undefined (Filip 1996).

5. Verb aspect, alternations and lexical quantification

Alternate occurrences, irrespective of whether they are diatheses or alternations, bear no relation to lexical quantification, whereas the possibility or the impossibility to form a certain set of diatheses and alternations depends on the verb aspect, which is predetermined by prefixing in general.

- (10) a. **Tya** shte narezhe s gradinarskite nozhitsi kloncheta ot edin hrast v gradinata.
She will shear down the twigs of a shrub in the garden.
a'. **Tya** shte ponarezhe s gradinarskite nozhitsi kloncheta ot edin hrast v gradinata.
She will shear partly some twigs of a shrub in the garden.
b. Pod neya **masloto** mozhe da se narezhe s nozh.
The butter beneath can be sliced with a knife.
b'. Pod neya **masloto** mozhe da se ponarezhe s nozh.
The butter underneath might take some slicing with a knife.
c. **Nozhat** shte narezhe **vazhetata** otchayvashto bavno.
The knife will cut through the ropes with despairing slowness.
c'. **Nozhat** shte ponarezhe **vazhetata** otchayvashto bavno.
The knife will cut through some of the rope twines with despairing slowness.
d. Te ozhiveno razgovaryaha, kogato si naryazaha **parcheta ot mesoto**.
They were talking busily, as they sliced cuts of the meat.

- d'. Te ozhiveno razgovaryaha, kogato si ponaryazaha **parcheta ot mesoto**.
They were talking busily, as they sliced **some cuts of the meat**.
- e. *Az sam zamislila ili neshto s kayma, ili klasikata yaytse i sirene, mozhe bi praz, che **luk** ne **mi** se narezhe!
*I will resort to either minced meat, or the classical combination of eggs and cheese, and leeks probably, as **I** don't feel like having cut **onions!**
- e'. *Az sam zamislila ili neshto s kayma, ili klasikata yaytse i sirene, mozhe bi praz, che **luk** ne **mi** se ponarezhe!
*I will resort to either minced meat, or the classical combination of eggs and cheese, and leeks probably, as **I** don't feel like (partly) cutting **onions!**
- f. **Asfaltat** e naryazan prez dvadeset metra zaradi novoto stroitelstvo.
The asphalt pavement was streaked with cuts every twenty metres because of the new buildings.
- f'. **Asfaltat** e ponaryazan prez dvadeset metra zaradi novoto stroitelstvo.
The asphalt pavement was streaked with partial cuts every twenty metres because of the new buildings.

6. Conclusion

Bulgarian verb aspect pairs are different lexical units with different meaning, inflectional paradigm and argument structure (reflecting categories, explicitness and referential status of arguments) and build different sets of diatheses, semantic and syntactic alternations. The verb prefixes alter the verb meaning in various manners: they may change the felicity only, both meaning and telicity, the lexical quantification and telicity, and the lexical quantification only. The scope of the verbal prefixes as a lexical quantifiers is the quantified verb phrase and the scope remains constant in all derived alternations.

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