Compositional aspect in languages featuring verbal aspect: biaspectuality on Bulgarian and Russian data

The contrast between perfectivity/imperfectivity is realized across languages in two different ways: verbal aspect (henceforward VA), as in the Slavic languages among others; compositional aspect (henceforward CA), as in the Germanic languages among others. VA is directly encoded by the verb. In CA, the articles (definite/indefinite/zero) mark temporal boundedness/non-boundedness on situation-participants NPs which is then mapped onto the verb. Though peripherally, CA is also realized in languages with VA systems such as Bulgarian and Russian. Russian lacks articles, Bulgarian has a definite article only. The mapping of temporal features between referents of nominals and verbs is demonstrated. The signaling of perfectivity in CA terms prototypically takes place with biaspectual verbs or when imperfectivity is so weak that it fails to stand its ground in specific conditions – the verb can then be labeled biaspectual instead of imperfective. Biaspectuality in Bulgarian is often disambiguated through the contrast between definite vs zero article. Biaspectuality disambiguation in Russian is more complex. Nominals again play a role, despite the absence of articles, through their lexical meanings – capable of influencing aspectual values, and the impact of situation-participant NPs again crucially determines whether a biaspectual verb signals perfectivity or imperfectivity.

Keywords: *Compositional and verbal aspect, Biaspectuality*; *Temporal boundedness/non-boundedness of nominal referents*; *Mapping of boundedness/non-boundedness*

Theoretical Background: Verbal vs Compositional Aspect

Aspect, the contrast between perfectivity-imperfectivity, is a universal phenomenon found in all natural languages in two disguises: CA and VA (Kabakčiev 1984; 2000; 2019; 2021).[1] VA, as represented, e.g., in the Slavic languages, Latin and Greek, has been known for a long time, since the birth of modern linguistics. CA was discovered relatively recently, by Verkuyl (1972). In Verkuyl's model, CA is invariably a sentence-level phenomenon, in which perfectivity and imperfectivity are ***explicated***, while VA is directly ***expressed*** by the verb as a lexical or syntactic entity. On the difference between explication and expression of aspect, see Kabakčiev (2019: 203ff). Verkuyl (1972) revealed CA on data from Dutch and English but gradually English became the major language to exemplify CA.

English sentences explicate perfectivity when they conform to Verkuyl's perfective schema, see (1a) below with verb arguments that are bounded by an article (*a*/*the*) or some other determiner/quantifier, personal/possessive pronouns, etc. Apart from that, the verb must have a telic potential. Sentences

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[1]Kabakčiev's (1984; 2000; 2019) model of CA partly follows Verkuyl's (1972; 1993), as described in Kabakčiev (2019).

1 obtained from (1a) with a singular or plural subject/object and accompanied by
2 an article (definite/indefinite), other determiners/quantifiers, personal/
3 possessive pronouns, etc., are perfective and represent Verkuyl's perfective
4 schema. Such verb arguments were described by Verkuyl (1972; 1993) as
5 designating "specified quantity of X". Verkuyl's term "specified quantity of X"
6 was later replaced by "bounded" in the literature – henceforward "bounded"
7 will be used here. All the other sentences below (1b,c,d,e) belong to Verkuyl's
8 imperfective schema, demonstrating so-called leaks vis-à-vis the relevant
9 sentence in the perfective schema and encoding Verkuyl's "non-specified
10 quantity of X" in NPs (on Verkuylian leaks, see Kabakčiev 2019: 203-204).
11 The term "non-specified quantity of X" was later replaced in the literature with
12 non-bounded, henceforward "non-bounded" will be used. Note that in
13 Verkuyl's imperfective schema a sentence must contain at least one bare plural,
14 see (1b,d,e); (1e) has two. The other requirement for the explication of
15 perfectivity, for the verb to have a telic potential, is also met: *visited* in (1a) has
16 it, unlike *hated* in (1c), which does not. Therefore, (1c) is imperfective
17 (Verkuyl 1972; 1993; Kabakčiev 2000; 2019: 203-204):

19 (1) a. The (a/this) patient/the (these/our/two) patients/they visited
20 [perfective] this hospital
21   b. The (a/this) patient/the (these/our/two) patients/they visited
22 [imperfective] hospitals
23   c. The (a/this) patient/the (these/our/two) patients/they hated
24 [imperfective] this hospital
25   d. Patients visited [imperfective] this hospital
26   e. Patients visited [imperfective] hospitals

28   Furthermore, as can be seen in (1), it does not matter whether a subject or
29 an object loses the feature "non-bounded" for the relevant sentence to become
30 imperfective.
31   The sentences in (1) comprise two verb arguments, subject and object,
32 each taking part in the explication of perfectivity/imperfectivity –
33 simultaneously with the other verb argument and the verb's lexical meaning
34 (telic potential). In sentences with one verb argument, see (2) below, the
35 situation is similar: (2a) is perfective, (2b) imperfective, because (2a) contains
36 a bounded argument (*a/the/this patient*, *these/our/two patients*) and (2b) a non-
37 bounded one (*patients*):

39 (2) a. The (a/this) patient/the (these/our) patients/they died [perfective]
40   b. Patients died [imperfective]

42   My theoretical model of CA (Kabakčiev 1984; 1999; 2000; 2019; 2021)
43 follows to a certain extent Verkuyl's and differs from it in that: (1) verb
44 arguments are called situation-participant NPs (or simply situation
45 participants); (2) the referents of situation-participant NPs are temporal entities,
46 not spatial ones as in Verkuyl's model (Kabakčiev 2019: 207-212); (3)

1 sentences belonging to Verkuyl's two schemata are perfective or imperfective
2 in my model *not always but by default* (Kabakčiev 2019: 205) – unlike in
3 Verkuyl's model where they are always either perfective or imperfective
4 (Verkuyl 1993: 182); (4) CA in my model is "an all-pervading and perpetual
5 process of mapping temporal features between elements of the sentence,
6 especially between referents of verbs and of nominals that are participants in
7 situations" (Kabakčiev 2019: 212) – as well as between adverbials and
8 referents of verbs or situation-participant NPs; for English, see the CA
9 mechanism similarly described in Bulatović (2013; 2019; 2020), for Greek,
10 Bulgarian and English see Dimitrova and Kabakčiev (2021).

11   Ultimately, aspect is the same phenomenon across languages, no matter
12 whether it arises in VA or CA terms (Kabakčiev 2021) and, furthermore, VA
13 and CA are mirror images of each other (Kabakčiev 2000: 158-161). VA is
14 found in European languages such as the Slavic ones and Greek, where verbs
15 (almost all, except biaspectual ones) are grammatically encoded as perfective
16 or imperfective. CA is found in languages such as the Germanic ones and
17 Finnish, which lack verbs grammatically marked for perfectivity. For the
18 explication of perfectivity these languages rely on CA – and the compositional
19 mechanism is effectuated at the level of the sentence with the crucial impact of
20 situation-participant NPs (Kabakčiev 2000; 2019). In this cross-language and
21 universal paradigm, for all languages, some are borderline/hybrid cases
22 featuring simultaneously VA and a definite article (no indefinite). Bulgarian
23 and Greek are such languages – featuring VA predominantly, though otherwise
24 belonging to different branches of the Indo-European genealogical tree.
25 Representing borderline/hybrid systems, they stand between the two main
26 representatives of VA and CA languages: Slavic, Germanic.[2]

27   Despite being borderline/hybrid languages with VA, Bulgarian and Greek
28 also feature CA – peripherally, and this can be demonstrated in specific
29 conditions with biaspectual verbs (Dimitrova and Kabakčiev 2021). The
30 explication of perfectivity/imperfectivity with biaspectual verbs in Greek is
31 restricted to certain verb forms. It can be demonstrated with future forms but
32 not with past tense forms. This is because Greek preterit verb forms
33 (aorist/imperfect) do not allow biaspectuality – the aorist requires perfective
34 verbs, the imperfect imperfective ones (Dimitrova and Kabakčiev 2021). In
35 Bulgarian the situation is different. Perfective and imperfective verbs are freely
36 used in both the aorist and the imperfect. Restrictions for biaspectual verbs in
37 Bulgarian are also fewer. The explication of perfectivity/imperfectivity with
38 biaspectual verbs is possible in all tense forms in Bulgarian, with the only
39 exception of 2nd and 3rd pers.sg. preterit forms which, similarly to Greek,
40 receive aspectual marking by acquiring an imperfect ending for imperfectivity
41 and no ending for non-imperfectivity (aorist).

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[2]In this paradigm, the Romance languages are CA languages but they demonstrate some hybrid features too: aspectual past tense grammemes (French passé composé – perfective, vs imparfait – imperfective), and specific uses of the definite article for encoding non-bounded NP referents.

1   Thus hybrid languages like Greek and Bulgarian explicate aspect in CA
2 terms in the same way as this is observed in prototypical CA languages, at the
3 sentence level. The issue is dealt with here because it forms the basis on which
4 Russian is analyzed: a prototypical VA language similar to Greek and
5 Bulgarian, featuring perfectivity and imperfectivity in verbs as lexical entries.
6 Compare the following sentences with three situation-participant NPs in
7 English (3), Greek (4) and Bulgarian (5), demonstrating the CA mechanism.
8 The Greek and Bulgarian sentences were obtained by translating the English
9 ones; see their CA analysis in Dimitrova and Kabakčiev (2021).

10
11 (3)   a. The valet will park [perfective] our car in the parking lot nearby
12   b. The valet will park [imperfective] cars$_{LEAK}$ in the parking lot nearby
13   c. The valet will park [imperfective] our car in nearby parking lots$_{LEAK}$
14   d. Valets$_{LEAK}$ will park [imperfective] our car in the nearby parking lot
15 (4)   a. O valé tha parkárei$_{BIASP}$ [perfective] to aftokínitó mas ston kontinó
16   chóro státhmefsis
17   b'. O valé tha parkárei$_{BIASP}$ [imperfective] aftokínita$_{LEAK}$ ston kontinó
18   chóro státhmefsis
19   c'. O valé tha parkárei$_{BIASP}$ [imperfective] to aftokínitó mas se kontinoús
20   chórous státhmefsis$_{LEAK}$
21   d'. Valédes$_{LEAK}$ tha parkároun$_{BIASP}$ [imperfective] to aftokínitó mas ston
22   kontinó chóro státhmefsis
23 (5)   a. Pikoloto shte parkira$_{BIASP}$ [perfective] kolata ni v blizkiya parking
24   b. Pikoloto shte parkira$_{BIASP}$ [imperfective] koli$_{LEAK}$ v blizkiya parking
25   c. Pikoloto shte parkira$_{BIASP}$ [imperfective] kolata ni v blizki
26   parkingi$_{LEAK}$
27   d. Pikola$_{LEAK}$ shte parkirat$_{BIASP}$ [imperfective] kolata ni v blizkiya
28   parking
29
30   The (a) sentences are perfective, belonging to Verkuyl's perfective schema
31 with three situation-participant NPs each bounded through an article and the
32 verb having a telic potential. The three bounded situation-participant NPs
33 simultaneously map their temporal boundedness onto the verb referent,
34 rendering it perfective (cf. the mechanism with two situation-participant NPs in
35 Kabakčiev 2000: 123-151). The other sentences (b,c,d) are imperfective,
36 belonging to Verkuyl's imperfective schema with three situation-participant
37 NPs. Each sentence is non-bounded because of the non-boundedness of only
38 one of the three situation-participant NPs, thanks to a single zero article (a bare
39 NP). In this model (Kabakčiev 2000; 2019), different from Verkuyl's
40 atemporal one, the situation-participant NPs are bounded or non-bounded
41 ***temporally***. The temporally non-bounded situation-participant NP in every
42 imperfective sentence maps its non-boundedness onto the verb referent and
43 renders it non-bounded, i.e., imperfective. And, as an additional step in the
44 mapping mechanism, the verb referent renders each of the other two situation-
45 participant NPs non-bounded – indefinitely recurrent/iterative, despite still
46 being accompanied by an article.

4

1   As demonstrated in Kabakčiev (2021), sentences with three situation-
2   participant NPs – prototypically in English and peripherally in Bulgarian and
3   Greek (Dimitrova and Kabakčiev 2021), are rare, difficult to find and
4   construct, and extremely valuable for analyzing CA. Using such sentences
5   facilitates the identification of the exact temporal values of the referents of
6   situation-participant NPs and the explanation of the mechanism of mapping
7   these values between referents of NPs and verbs. The twelve sentences in the
8   three languages above show how perfectivity and imperfectivity are realized
9   separately in: (i) a prototypical CA language, English, with no perfective VA
10   and a regular pattern of articles (definite/indefinite/zero); (ii) two VA
11   languages, Greek and Bulgarian, that are also hybrid languages, featuring VA
12   alongside a definite article. Note that while Greek, as already mentioned, has a
13   restriction on the use of biaspectual verbs in the preterit, Bulgarian has similar
14   restrictions but less severe. If a biaspectual verb is in the past and in the
15   singular (the subject representing a singular entity), it must be used *either* in
16   the aorist (6a) or the imperfect form (6b,c):

17
18   (6)   a. Pikoloto parkira$_{BIASPAOR}$ [perfective] kolata ni v blizkiya parking
19   'The valet parked our car in the nearby parking lot'
20   b. Pikoloto parkirashe$_{IMP}$ [imperfective] koli$_{LEAK}$ v blizkiya parking[3]
21   'The valet was parking/parked habitually cars in the nearby parking lot'
22   c. Pikoloto parkirashe$_{IMP}$ [imperfective] kolata ni v blizki parkingi$_{LEAK}$
23   'The valet was parking/parked habitually our car in the nearby parking
24   lot'
25   d. Pikola$_{LEAK}$ parkiraha$_{BIASP}$ [imperfective] kolata ni v blizkiya parking
26   'The valet was parking/parked habitually our car in the nearby parking
27   lot'

28
29   In the plural no such restriction holds: (6d) is a truly biaspectual preterit
30   form.

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32
33   **Sentences in Russian with Biaspectual Verbs and Three Situation-**
34   **Participant NPs**

35
36   Given that sentences with three situation-participant NPs are important for
37   identifying the temporal values of referents of situation participants in CA
38   languages and in borderline/hybrid VA languages with peripheral CA features
39   (Bulgarian/Greek), the question that begs asking is whether the CA mechanism
40   can be demonstrated in such sentences in prototypical VA languages like
41   Russian – with perfective and imperfective verbs and no articles. For the
42   purpose, let us use an English sentence with three situation-participant NPs

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[3] There is a subtle difference here between the Bulgarian 3rd pers.sg. verb forms *parkira*
'parked' and *parkirashe* 'was parking/parked habitually'. The first one is homonymous for the
perfective aorist and the imperfective aorist, while the second one can be regarded as a pure
imperfect, hence imperfective.

1 (7a), previously analyzed in Kabakčiev (2021). Its constructed Modern English
2 form is based on a Middle English sentence from Cursor Mundi (1300 A.D.).
3 The Cursor Mundi sentence is *She dud þe childe drynke of þe welle* 'She made
4 the child drink from the well'. It contains the following situation-participant
5 NPs: *she* 'she', *þe childe* 'the child', *þe welle* 'the well'. The situation-
6 participant NP *she* is changed into *the woman* – to obtain an NP with an article:
7
8 (7)   a. The woman made [perfective] the child drink from the well
9   b. The woman made [imperfective] children$_{LEAK}$ drink from the well
10   c. The woman made [imperfective] the child drink from wells$_{LEAK}$
11   d. Women$_{LEAK}$ made [imperfective] the child drink from the well
12
13   Sentence (7a) matches Verkuyl's perfective schema. It has three bounded
14 situation-participant NPs and a telic verb, *made*. The other three sentences
15 (7,b,c,d) demonstrate how each situation-participant is capable, thanks to the
16 CA mechanism, of changing the aspectual meaning of the first sentence,
17 perfective, turning it into an imperfective one. The imperfectivization is
18 achieved through the de-quantification of the relevant situation-participant NP.
19 The de-quantified and hence non-bounded (referent of) *children* in (7b) makes
20 the sentence imperfective vis-à-vis (7a). The de-quantified and hence non-
21 bounded *wells* in (7c) makes the sentence imperfective vis-à-vis (7a). The de-
22 quantified and hence non-bounded *women* in (7d) makes the sentence
23 imperfective vis-à-vis (7a) – according to the mapping mechanism described
24 above.
25   In Bulgarian and Greek, as already shown, this mechanism of
26 imperfectivizing initially perfective sentences such as (7a) through the impact
27 of a situation-participant NP **can also** be demonstrated – but not so smoothly,
28 especially in Greek, where there are heavy restrictions. To render a similar
29 picture of CA in Bulgarian with (7a), a biaspectual verb is needed. However,
30 there is no Bulgarian biaspectual verb meaning 'make somebody do
31 something'. Let us therefore use the verb *motiviram* 'motivate' (the same will
32 be done below in Russian):
33
34 (8)   a. Zhenata motivira$_{BIASP}$ [perfective] deteto da pie ot kladenetsa
35   'The woman motivated the child to drink from the well'
36   b. Zhenata motivirashe$_{IMP}$ [imperfective] detsa$_{LEAK}$ da piyat ot
37   kladenetsa
38   'The woman motivated children to drink from the well'
39   c. Zhenata motivirashe$_{IMP}$ [imperfective] deteto da pie ot kladentsi$_{LEAK}$
40   'The woman motivated the child to drink from wells'
41   d. Zheni$_{LEAK}$ motiviraha$_{AOR/IMP}$ [perfective/imperfective] deteto da pie
42   ot kladenetsa
43
44   'Women/some women motivated the child to drink from the well'
45   Bulgarian is a VA language like Russian and closely related to Russian in
46 its grammatical system, particularly as regards aspect. As can be seen in (8),

1 the regularity does not work in Bulgarian sentences with a singular subject-NP,
2 just like in (6) above – in the sense that a subject in the singular, representing a
3 single agent, imposes a choice of either an aorist or an imperfect verb form,
4 which means that biaspectuality is eliminated. With future tense verb forms,
5 see (5) above, this does not happen, biaspectuality is effectuated. Note
6 specifically that the verb form *motiviraha*_{AOR/IMP} 'motivated-they' in (8d) is
7 ambivalent between perfectivity/imperfectivity: it can be read as perfective if
8 *zheni* 'women' is read as bounded, equal to *edni zheni* 'some women', and
9 imperfective if *zheni* 'women' is read as non-bounded (non-quantified).
10 And now let us have the English sentences (7) translated into Russian – to
11 see whether the interplay between verb referent and NP referents can
12 materialize. A biaspectual verb for "make somebody do something" is absent
13 in Russian, like in Bulgarian, so let us use *motivirovat'* 'motivate':

15 (9) a. Zhenshchina motivirovala_{BIASP} [perfective/imperfective]
16 rebenka pit' iz kolodtsa
17 'A/the woman motivated a/the child to drink from a/the well'
18 b. Zhenshchina motivirovala_{BIASP} [perfective/imperfective] deti pit' iz
19 kolodtsa
20 'A/the woman motivated children/some children/the children to drink
21 from a/the well'
22 c. Zhenshchina motivirovala_{BIASP} [perfective/imperfective] rebenka pit'
23 iz kolodtsev
24 'A/the woman motivated a/the child to drink from wells/some wells/the
25 wells'
26 d. Zhenshchiny motivirovali_{BIASP} [perfective/imperfective] rebenka pit'
27 iz kolodtsa
28 'Women/some women /the women motivated a/the child to drink from
29 a/the well'

31 As can be seen from the English translation equivalents of the four Russian
32 sentences (9), the only conclusion that can be drawn concerning the temporal
33 values of the situation-participant NPs, namely, whether they are bounded or
34 non-bounded, and concerning their nominal determination status, namely,
35 whether they are definite or indefinite, is absolutely clear and categorical, and
36 is the following. All the three situation-participant NPs in each of the four
37 Russian sentences are ***fully ambivalent between a definite/indefinite and a***
38 ***bounded/non-bounded reading***, which makes them ***completely unanalyzable***
39 ***in CA terms***. All the four sentences are absolutely ambiguous between
40 perfectivity and imperfectivity.
41 Let us begin the analysis with the sentences expected to be imperfective
42 (9b,c,d). Sentence (9b) ought to feature a de-quantified direct object *deti*
43 'children' vis-à-vis *rebenka* 'child' in (9a).[4] But it does not – not for one, for
44 two reasons. First, *deti* 'children' is ***not*** de-quantified, because *rebenok* 'child'

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[4]Russian features suppletivity here: *rebenok* 'child', *deti* 'children'.

1 is **not quantified**, unlike in English where *child* is always quantified,
2 obligatorily appearing as either *a child* or *the child* – the reason being that in
3 Russian there are no definite and indefinite articles. Second, *deti* 'children' is,
4 actually, and to be more precise, **neither quantified, nor non-quantified** –
5 because it can be interpreted as either, i.e., as both. If we take it that sentence
6 (9b) contains a definite subject, 'the woman', and a definite place adverbial,
7 'the well', it can then refer to any of the following three situations: (i) 'The
8 woman motivated children to drink from the well' – which in English is an
9 imperfective sentence, with imperfectivity realized in CA terms; (ii) 'The
10 woman motivated some children to drink from the well' – which in English is a
11 perfective sentence, perfectivity again realized in CA terms; (iii) 'The woman
12 motivated the children to drink from the well' which in English is a perfective
13 sentence, perfectivity realized in CA terms.
14   The same applies to the other two sentences. In (9c) *iz kolodtsev* can mean
15 'from wells', in which case imperfectivity is explicated in CA terms, because *iz*
16 *kolodtsev* is non-bounded. But *iz kolodtsev* can also mean 'from some wells' or
17 'from the wells', in which case perfectivity is explicated, again in CA terms –
18 *iz kolodtsev* is then taken to be as if bounded by quantifiers (*some*/*the* in
19 English). In (9d), *zhenshchiny* can mean 'the women' or 'some women', in
20 which case it is bounded, hence perfectivity is explicated in CA terms. But
21 *zhenshchiny* can also mean 'women', non-bounded, in which case
22 imperfectivity is explicated, again in CA terms.
23   All this leads to a rock-solid conclusion that while in English and similar
24 CA languages sentences with three situation-participant NPs like (9) reveal in
25 the most convenient fashion the CA mechanism for mapping temporal values
26 of situation-participant NPs onto the verb referent, as well as the mechanism of
27 re-arranging temporal values of situation-participant NPs in the sentence,[5] in
28 Russian and similar Slavic VA languages with perfectivity in verbs and no
29 articles **such sentences are of no use for explaining biaspectuality**, i.e., for
30 disambiguating biaspectual verbs and for demonstrating the CA explication
31 mechanism. This, in turn, leads to the conjecture that while in CA languages
32 like English it is precisely sentences with three situation-participant NPs that
33 are appropriate for generalizations concerning CA, in VA languages without
34 articles generalizations concerning CA will be **easier to make in exactly the**
35 **opposite way**: with fewer situation-participant NPs in the sentence and
36 probably, at best, with **one situation-participant NP** only. But before
37 proceeding to an analysis of Russian sentences with one situation-participant
38 NP, let us first see how biaspectuality is treated in Slavic linguistics, and
39 particularly in Russian.
40
41

[5]As shown earlier in the paper, in hybrid languages with VA and simultaneously a definite article (Bulgarian, Greek) these sentences again **can**, albeit with certain restrictions, demonstrate the CA mechanism of mapping temporal values of situation-participant NPs onto the verb referent and the mechanism of re-arranging the temporal values of situation-participant NPs in the sentence.

About the Traditional Treatment – in VA Terms – of Slavic Biaspectuality

This overview of the treatment of biaspectuality in Slavic aspectology will take into account studies published in or after 1980. It would be natural for investigations of biaspectuality from the last four decades to take into account CA, as CA deals precisely with sentence-level explication of aspect, unlike VA, which is a verb-centered phenomenon. Let us see if this expectation is realized.

The Russian (Academy) Grammar (1980: 583, 590) pays due attention to biaspectuality – in fully traditional terms, offering some explanations with a technical flavor of the aspectual meaning of biaspectual verbs, for example, as "supported by adjacent verbs with a formally expressed aspectual meaning". Thus sentence (10a) demonstrates imperfectivity of the biaspectual past tense form *obsledovali* 'investigated-they' – due to the support of the neighboring imperfective verb *preduprezhdali* 'warned-they':

(10)   a.   Oni mnogo raz *obsledovali*$_{\text{BIASP-PAST}}$ [imperfective] etot ob'ekt i *preduprezhdali*$_{\text{IMPFV-PAST}}$ o vozmozhnosti nepoladok
       'They investigated this object many times and warned about possible problems'
    b.   Kak tol'ko bol'nogo *gospitaliziruyut*$_{\text{BIASP-PRESENT}}$ [perfective], soobshtite mne ob etom
       'As soon as the patient is hospitalized, let me know'
    c.   Vrach *gospitaliziruet*$_{\text{BIASP-PRESENT}}$ [imperfective] bol'nogo i otpravlyaet ego na mashine skoroy pomoshchi
       'The doctor hospitalizes the patient and sends him by ambulance.'

In (10b) the biaspectual form *gospitaliziruyut* 'hospitalize-they' is in a pattern within a dependent clause beginning with *kak tol'ko* 'as soon as', requiring perfectivity to be assigned to it. Nominally a present tense form of a biaspectual verb is imperfective but its use here is in a dependent clause with a futurate/conditional meaning (as in English *When/if/once they hospitalize the patient, let me know*). In (10c), conversely, the biaspectual verb *gospitaliziruet* 'hospitalizes' is again a present-tense form but this time with an imperfective meaning due to its use in an independent clause.

Concerning the prevalence of biaspectual verbs in Russian, Gladney (1982: 202) points out that Russian dictionaries contain some 600 verbs entries in *-ovat'*, biaspectual, and that these verbs have a definite aspectual meaning in every concrete instance – a statement that appears wrong (see below). Different attempts at estimates of biaspectual verbs quote different numbers but almost always fewer than one thousand (Anderson 2002: 13-14; Janda 2007; Piperski 2018). This is an obvious underestimation. With the stormy development of computer technology for decades already and the unceasing influx of English verbs in *-irovat'* and *-ovat'*, the presence of biaspectual verbs in Russian ought to be much higher.

Gladney (1982: 202) rightly concludes that a better understanding of biaspectual verbs should lead to a better understanding of VA. Unfortunately,

1 many Slavic aspectological studies treat biaspectual verbs (sometmes called
2 anaspectual – Bermel 1997: 180-181; Timberlake 2004: 407-408) as if they
3 represent a negligible class or even as if they do not exist. Gladney's conjecture
4 four decades ago about the importance of biaspectual verbs for the study of
5 aspect thus remains ignored. In many newer publications on aspect,
6 biaspectuality is either ***not discussed at all*** (Rassudova 1982; Glovinskaja
7 2001; Shkunnikov 2003; Karavanov 2005; Sokolovskaya 2008; Lagunow
8 2014) or ***mentioned only in passing*** (Stunová 1993; Durst-Andersen 1992;
9 Gorlatov 2009). Mirohina (2009: 21), briefly discussing biaspectual verbs,
10 argues that "their place in the system of aspect has not yet been determined".
11 Even strange statements are encountered, according to which Russian features
12 an insignificant number of biaspectual verbs (Makarova 2009: 10). Given the
13 number of works in which biaspectuality is not discussed or is only mentioned,
14 it is worth asking: if the use of aspect in the form of perfective and
15 imperfective verbs is intricate, as these publications otherwise regularly
16 emphasize, what about biaspectual verbs? Their use is even more intricate than
17 that of perfective and imperfective verbs, because they are aspectually
18 ambiguous but in most cases explicate perfectivity or imperfectivity. Exactly
19 how do they accomplish this? In many descriptions of the use of perfective and
20 imperfective verbs, even detailed ones, the authors sidestep this issue – let
21 alone propose a viable explanation of how aspect is effectuated with Russian
22 biaspectual verbs.
23   Janda (2008: 181) argues that "biaspectual verbs are never ambiguous in
24 context", quoting a surprisingly large number of publications sharing this view
25 – indeed mainly old, but there are also recent ones maintaining it, e.g., Starý
26 (2017: 112). This thesis is wrong and goes against the position in the Russian
27 Grammar (1980: 590), according to which there are cases in which neither the
28 form of a biaspectual verb nor its context can clarify the aspectual meaning:
29
30 (11)   a. Biologicheskij metod bor'by protiv neproshennyh "nahlebnikov"
31   sostoit v tom, chtoby aktivizirovat'$_{BIASP}$ [perfective/imperfective]
32   polchishcha ih antagonistov – nasekomyh hishchnikov
33   'The biological method of fighting uninvited "freeloaders" is to activate
34   the hordes of their antagonists – insect predators'
35   b. Eta stantsija vpervye translirovala$_{BIASP}$ [perfective/imperfective] v
36   efir operu "Jevgenij Onegin" iz Bol'shogo teatra
37   'This station was the first to broadcast the opera Eugene Onegin from
38   the Bolshoi Theater'
39
40   In (11a) it is hard to decide whether the speaker has in mind a single
41 activation of insect predators or a regular, permanent one, non-bounded. In
42 (11b) it is hard to decide whether the speaker has in mind a single broadcast or
43 a regular one, repeated, non-bounded in time. The biaspectual forms
44 *aktivizirovat'* 'activate' and *translirovala* 'broadcast' cannot, therefore, be
45 assigned a definite aspectual reading (perfective or imperfective). Similar cases
46 in English (where all verbs are, as it were, biaspectual) are discussed in

1 Verkuyl (1993: 329-338) – and in Kabakčiev (2000: 111-112) under the label
2 "aspectually ambiguous verbs". An Old English example in Sommerer (2018:
3 80), *Æfter þan þæt lond wearð nemned natan leaga* 'After that, the land was
4 called Netely', is discussed in Kabakčiev (2021), with a comment that such
5 "cases of absence of aspect" in English are exotic. They occur rarely indeed but
6 they do exist – and must hence be taken into account. The wrong thesis that
7 biaspectual verbs are never ambiguous in context (Janda 2007; 2008: 181) is
8 worth considering from another point of view too. Since biaspectual verbs are
9 disambiguated in context in the huge majority of cases, it begs the question
10 exactly how they are disambiguated.
11   All the Slavic languages have biaspectual verbs, already discussed on
12 Bulgarian data. According to the Russian Grammar (1980: 590), the aspectual
13 meaning of biaspectual verbs can be established "through the general meaning
14 of the utterance", or, in the usual wording, "from the context". The following
15 examples are given in the Russian Grammar (1980: 583) – with perfectivity
16 effectuated in (12a) and imperfectivity in (12b) with the verb *gospitalizirovat'*
17 'hospitalize'. But no attempt is made at a reasonable explanation how the
18 aspectual meaning arises:
19
20 (12) a. Vvidu tyazhelogo zabolevaniya bol'nogo gospitalizirovali$_{BIASP-PAST}$
21   [perfectivity]
22   'Because of the severe illness, the patient was hospitalized'
23   b. V detstve on chasto bolel i ego prihodilos' gospitalizirovat'$_{BIASP-PAST}$
24   [imperfectivity]
25   'In his childhood he was often ill and had to be hospitalized'
26
27   Let us analyze. Sentence (12a) belongs to the AOSV pattern, with two
28 major situation-participant NPs: the hospital staff, grammatically present in a
29 covert way in the 3rd pers.pl. pronoun *they*, and a patient (*he*). The severe
30 illness in the past is also a situation participant, in the form of an adverbial. The
31 verb is fully ambivalent aspectually, so this is not a case of VA expression but
32 of CA explication, at the sentence level. It may happen that a sentence does not
33 offer enough clues whether the aspect is perfective or imperfective. Knowledge
34 of the world then plays an important part (Kabakčiev 2000: 309-326). The
35 problem to decide here is whether:
36
37   - (12a) describes a single event in which the situation participants *he* (the
38   patient) and *they* (the hospital staff), grammatically covert in 3rd pers.
39   pronouns, are single and temporally bounded entities, and the potential
40   third situation participant, *severe illness*, is also a single and temporally
41   bounded entity, or;
42   - this is a temporally non-bounded situation in which the three
43   participants are temporally non-bounded entities.
44
45   The choice between the two options is a task faced by the hearer of the
46 sentence, who must interpret it – along with other similar aspectually

1   ambivalent sentences. Let us consider the second option first. The easiest way
2   to envisage (12a) as a case of imperfectivity is to add an adverbial of indefinite
3   repetition (non-bounded iterativity, recurrence) such as *chasto* 'often', as in
4   (12b). Sentence (12a) with *chasto* 'often' added will have the form
5   (12a'):
6   (12)   a'.   Vvidu   tyazhelogo   zabolevaniya   bol'nogo   chasto
7   gospitalizirovali$_{\text{BIASP-PAST}}$ [imperfectivity]
8   'Because of the severe illness, the patient was often hospitalized'

10   What does the adverbial *chasto* 'often' do here? It maps its indefinite
11   repetition (non-bounded iterativity, recurrence) onto the referent of the verb
12   *gospitalizirovali* 'hospitalized-they' rendering its meaning non-bounded and
13   iterative, i.e., imperfective. What traditional grammar fails to understand is that
14   an adverbial of indefinite repetition not only maps its recurrence onto the
15   referent of the verb, it also maps its recurrence onto the referents of the
16   situation-participant NPs. In this case they are three: the hospital staff (*they*);
17   the patient (*he*); *severe illness*. What does this mean? It means that in order to
18   have an imperfective sentence such as (12a'), we must not only have a verb
19   expressing/explicating imperfectivity of the non-bounded iterative type. We
20   must have all the situation participants non-bounded and iterative, recurring an
21   indefinite number of times, including the hospital staff in the form of non-
22   bounded and iterative instantiations – these instantiations dealing with non-
23   bounded and iterative instantiations of the patient. In other words, in (12a') we
24   have all the referents of the situation-participants NPs non-bounded and
25   iterative – but the human brain, the software in our heads, is tweaked in such a
26   way that, in order to save memory, it merges into one entity the non-bounded
27   and iterative instantiations of the hospital staff, as well as of the patient and
28   even of *severe illness* (see Kabakčiev 2000: 117-119). To put it otherwise, for
29   traditional linguistics the hospital staff is ***one entity***, uninterrupted in time
30   (which cannot be true – however we try to interpret it), the patient is also ***only***
31   ***one***, the same one (which may be true but only in commonplace terms), and
32   even *severe illness* appears to be ***one entity***, while obviously it cannot be the
33   same health situation every time.
34   Let us return to the task for the hearer – to decide whether sentence (12a)
35   has the meaning of (12a'), non-bounded iterative, imperfective – which is
36   possible in principle even without the addition of *chasto* 'often', or has the
37   other meaning, in which we have a single instantiation of the hospital staff, a
38   single instantiation of the patient and a single instantiation of *severe illness*.
39   The hearer in these cases obviously decides that sentences such as (12a) with
40   the situation-participant NPs and the verb non-marked for boundedness or non-
41   boundedness, are perfective, explicating a single completed situation and a
42   single instantiation of the hospital staff, the patient and of *severe illness*.
43   Precisely why this is so probably has to do with the singularity (grammatical)
44   of the NPs, implicating that sentences such as (12a) ***must be regarded as***
45   ***perfective by default*** – which means that in the presence of markers of
46   indefinite iterativity in the sentence (or the larger context) these sentence ***can***

1 be interpreted as indefinitely iterative, imperfective. But by default they are
2 perfective.
3   To finish this overview of the traditional treatment, in VA terms, of Slavic
4 biaspectuality, complemented by a CA analysis of biaspectuality, it is strange
5 to find that a recent large monograph on Russian aspect (Zaliznyak et al. 2015:
6 86-87), pays very little attention to biaspectuality. The authors not only see it
7 as a peripheral phenomenon but even insist that the language system is trying
8 to eliminate it. A view of this kind sidesteps two facts. First, biaspectuality
9 existed for centuries and *was never eliminated*. Second, today all the Slavic
10 languages, including Russian, are experiencing an extremely powerful influx of
11 English verbs, especially from the computer sciences – and these verbs are
12 borrowed as biaspectual. In any case, Zaliznyak et al. (2015) fail to explain
13 how biaspectuality is disambiguated – as a result of a *lack of knowledge of*
14 *CA*, a characteristic feature of Russian aspectology.
15
16

17 **Aspect and Biaspectuality in Slavic Publications Partially Dealing with the**
18 **CA Theory**
19

20   As already established, although CA was discovered 50 years ago, i.e., the
21 theory behind it is half a century old (Verkuyl 1972), it is still far from popular
22 among Slavic aspectologists. There are some exceptions to the practice of
23 ignoring the CA theory in studies of Slavic VA, among which Padučeva
24 (2004), Borer (2005), Borik (2006), Romanova (2007), Tatevosov (2015),
25 Spasojević (2015). But they all follow approaches that are entirely atemporal,
26 not viewing referents of situation-participant NPs as temporal entities – which,
27 as already demonstrated in detail in Kabakčiev (2019), leads straight into a
28 dead end. The huge problem of the atemporal understanding of CA is that it
29 *ignores the major CA postulate*, established with the very birth of the CA
30 theory (Verkuyl 1972), that *aspect is explicated at the level of the sentence*,
31 not at the level of its components. But apart from employing a hopeless
32 atemporal approach to the compositional buildup, in addition CA studies
33 drastically sidestep the role of the subject as a carrier of a major situation-
34 participant NP for the effectuation of the compositional mechanism.
35   Borer (2005) and Borik (2006) applied Verkuyl's CA model onto Russian
36 data fully mechanistically and concluded that it did not work, ignoring earlier
37 data and argumentation that it does (Kabakčiev 2000).[6] Tatevosov (2014;
38 2015) and Romanova (2007), discussing Russian, follow an atemporal
39 approach, focusing their attention on internal arguments. In a subsection
40 entitled *Action Composition* (by which CA is obviously meant), Tatevosov
41 (2015) argues that CA is an interaction between verbal and non-verbal
42 components of the predication, "most important of which is the internal
43 argument". As already demonstrated above, CA is not predicate- or verb-based
44 (apart from Kabakčiev 2000; 2019, see this also in Bulatović 2019; 2020 and

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[6]The gross defects of the atemporal approach, followed by many – or even most – researchers,
are revealed in detail in Kabakčiev (2019: 212-214).

1 Dimitrova and Kabakčiev 2021). Tatevosov (2015) also offers the view that
2 languages are "of the English type", in which internal arguments impact aspect,
3 or "of the Russian type", where "the telicity of the event predicate restricts the
4 interpretation of the argument". Assertions like this clearly result from
5 unfamiliarity with broader generalizations made earlier (Kabakčiev 2000: 168-
6 161) that CA is not only strictly sentence-based (not VP-based) but is also a
7 mirror image of VA. Romanova (2007), demonstrating knowledge of CA and
8 otherwise offering various in-depth analyses of quantitative properties of verb
9 arguments, also remains constrained within the VP domain, failing to interpret
10 CA as a sentence-level phenomenon.
11   Familiar with CA, Spasojević (2015) also fails to employ Verkuyl's
12 aspectual schemata in her analysis of Serbian biaspectuality – something
13 previously done on Bulgarian (in Kabakčiev 1984; 2000), a language closely
14 related to Serbian. Spasojević's approach to biaspectuality entirely follows the
15 Slavic tradition of employing long, complex sentences, trying to explain their
16 aspectual meanings only through the native speaker's intuition (Spasojević
17 2015: 84-91). Other recent publications dealing with Slavic biaspectual verbs
18 are Zinova and Filip (2013), Zaliznyak et al. (2015), Starý (2017), Piperski
19 (2018). None of them employs a CA approach. Practically, to the present day
20 and with the exception of my own studies, some of them published decades ago
21 (Kabakčiev 1984; 2000), the CA theory, whether in Verkuyl's version or in
22 mine, has ***never*** been applied to the study of Slavic biaspectuality.[7] But it has
23 been applied to Bulgarian and Greek data here (above), and will also be done
24 below, on Russian data.
25
26
27 **Biaspectuality on Russian Data Through the Prism of the CA Theory**
28
29   As is common knowledge, the concept of a bare NP emerged on the basis
30 of data from languages such as English. After the discovery of CA by Verkuyl
31 its significance rose along with the realization that the zero article (found in a
32 bare NP) is the only language marker of what Verkuyl calls "non-specified
33 quantity", i.e., non-boundedness. But in languages such as Russian and the
34 other Slavic tongues (except Bulgarian) the concept of a zero article does not
35 work in the same way as in English and similar languages. This is because a
36 bare NP is ambiguous in meaning as regards the values (in)definiteness and
37 (non-)boundedness, and hence the concept of a bare NP is of lesser value there
38 – with the exception of otherwise VA languages like Bulgarian and Greek in
39 which the presence of a definite article triggers a permanent contrast between
40 definiteness and indefiniteness. In Bulgarian and Greek a noun in a bare NP –
41 whether the NP is singular or plural, is ***always*** indefinite and stands in
42 opposition to an NP with the same noun ***and*** a definite article. This means that
43 in languages with VA and no articles, the higher the number of bare NP
44 situation participants in a sentence, the higher the possibilities for ambiguity of

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[7]To the author's best knowledge.

the situational meaning of the relevant sentence. And this, in turn, means that opportunities for disambiguating biaspectuality, as already established, should be sought not in sentences with two or three NP situation participants but, vice versa, mainly in sentences with only one NP situation participant – such that a very clear distinction can be made there between a quantified NP (a bounded referent), and a non-quantified NP (a non-bounded referent).

Consider the following fairly simple examples in Russian and Bulgarian in which the relevant biaspectual verb has a single situation-participant NP associated with it and there are no aspect-related adverbials, conjunctions or similar additional elements to interfere with the aspectual analysis:

(13) a. Kak organizovat'$_{BIASP}$ [perfective] sobranie sobstvennikov?
       a'. Kak da se organizira$_{BIASP}$ [perfective] sabranie na sobstvenitsite?
       'How to organize a meeting of the co-owners?'
       b. Kak organizovat'$_{BIASP}$ [imperfective] semejnye rashody
       b'. Kak da se organizirat$_{BIASP}$ [imperfective] semejni razhodi
       'How to organize family expenses?'

(14) a. Kak organizovat'$_{BIASP}$ [perfective] kontsert?
       a'. Kak da se organizira$_{BIASP}$ [perfective] kontsert?
       'How to organize a concert?'
       b. Kak organizovat'$_{BIASP}$ [imperfective] simfonicheskie rok-kontserty?
       b'. Kak da se organizirat$_{BIASP}$ [imperfective] simfonicheski rok-kontserti?
       'How to organize symphonic rock concerts?'

(15) a. Kak organizovat'$_{BIASP}$ [perfective] moyu svad'bu?
       a'. Kak da se organizira $_{BIASP}$ [perfective] svadbata mi?
       'How can my wedding be organized?'
       b. Kak organizovat'$_{BIASP}$ [imperfective] svad'by?
       b'. Kak da se organizirat$_{BIASP}$ [imperfective] svadbi?
       'How to organize weddings?'

Clearly, *organizovat' sobranie sobstvennikov* (Russian)/*organiziram sabranie na sobstvenitsite* (Bulgarian) 'organize a meeting of co-owners' are perfective phrases, while *organizovat' semejnye rashody* (Russian)/*organiziram semejni razhodi* (Bulgarian) 'organize family expenses' are imperfective phrases. Why? Because a meeting of co-owners is normally, by default, a single event, temporally bounded, with a definite beginning and a definite end – e.g., from 7 pm to 9 pm today. In the perfective phrase *organizovat' sobranie sobstvennikov* 'organize a meeting of co-owners', the temporal boundedness of *sobranie sobstvennikov* 'a meeting of co-owners' is mapped onto the (referent of the) biaspectual verb *organizovat'* 'organize' – and the verb is read as signaling perfectivity. Conversely, NPs such as *semejnye rashody* (Russian)/*semejni razhodi* (Bulgarian) 'family expenses' do not denote a single temporally bounded event. They denote temporal entities with no definite beginning and no definite end. Hence they are non-bounded on the time axis and their non-boundedness is mapped onto the (referent of the)

1 biaspectual verb *organizovat'/organiziram* 'organize' in the relevant V-NP
2 phrases, rendering the aspectual value imperfective. Similarly with "organize a
3 concert" and "organize my wedding" in (14a,15a) – perfective, and "organize
4 symphonic rock concerts" and "organize weddings" in (14b,15b) –
5 imperfective.
6   A peculiar trait of the English language are the verb-noun collocations of
7 the type *have a fall*, *have a listen*, *have a look*, *have a smoke*, usually called
8 *have a look* (type of) phrases, in which the verb *have* manifests no aspectual
9 features and the explication of perfectivity is effectuated by the noun. Thus *a*
10 *swim* in *John had a swim* is a temporally bounded entity and its boundedness is
11 mapped onto *had*, rendering the aspectual value of *had* and of the phrase *had a*
12 *swim* perfective, see Kouteva et al. (2019: 343) where the description is based
13 on Kabakčiev's (2000: 212) thesis of mapping temporal boundedness from the
14 referent of the noun onto the verb referent. Conversely, in *John had dignity* the
15 noun *dignity* denotes an entity non-bounded in time. The temporal non-
16 boundedness is mapped onto the referent of the verb *had*, making the aspectual
17 value of *had* and of the phrase *had dignity* imperfective; see Kabakčiev (2000)
18 about English, Kabakčiev (1999) about Bulgarian, Dimitrova and Kabakčiev
19 (2021) about Greek.
20   Let us move on to the SVO pattern, i.e., to Russian sentences with two
21 situation-participant NPs. Phrases similar to the English *have a look* type do
22 not at all appear to be common in Russian – but there are some that are
23 sometimes encountered. Russian phrases corresponding to the English *have a*
24 *look* collocation are of two types: (a) *imet'* + NP phrases such as *imet' besedu*
25 'have a conversation', *imet' glupost'* 'had the stupidity', *imet' porazhenie* 'have
26 a defeat'; (b) the pattern *u menja/nego* (etc.) *bylo* + NP 'I/he had' (literally
27 'with me/him was'), considered to be somewhat more standard than *imet'*
28 'have' + NP. In both, the imperfectivity of the verbs *imet'* 'have' and *byt'* 'be'
29 can be said to be so weak that it fails to stand its ground in specific semantico-
30 syntactic conditions and allows perfectivization. Consider the following
31 sentences with *imet'* 'have' explicating perfectivity and each having an
32 equivalent phrase with a perfective verb:
33
34 (16)   a. Ja imel$_{BIASP}$ besedu [perfective] s general'nym direktorom [=
35   provel$_{PFV}$ besedu]
36   'I had a conversation with the director general'
37   b. Ja imel$_{BIASP}$ glupost' [perfective] stat' vratarem [= sovershil$_{PFV}$
38   glupost']
39   'I had the stupidity to become a goalkeeper'
40   c. Vstrechus' s sopernikom, ot kotorogo ranee ja imel$_{BIASP}$ porazhenie
41   [perfective = dopustil$_{PFV}$ porazhenie]
42   'I will meet an adversary against whom earlier I had a defeat'[8]
43

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[8]These phrases are also common in Bulgarian: *imam beseda* 'have a talk', *imam glupostta*
'have the stupidity', *imam porazhenie* 'have a defeat'.

Note that if the phrase *imet'*_{BIASP} *porazhenie* 'have a defeat' is perfective in (16c) due to the temporal boundedness of the nominal *porazhenie* 'defeat' as well as to the temporal boundedness of the referent of the personal pronoun *ja* 'I', both simultaneously mapped onto the referent of the verb *imel* 'had-I', in (17a,b) the same verb explicates imperfectivity. This is again effectuated in CA terms. In (17a) the non-boundedness (indefinite iterativity) of *porazhenija* 'defeats' is mapped onto the referent of *imel* 'had-I' and in (17b) the lexical non-boundedness of *nadezhda* 'hope' is also mapped onto the referent of *imel*:

(17)   a. Vstrechus' s sopernikom, ot kotorogo ranee ja imel_{BIASP} porazhenij [imperfective]
'I will meet an adversary against whom earlier I had defeats'
b. Ja imel_{BIASP} nadezhdu [imperfective] vernut'sja
'I had a hope to return'
c. U menja bylo_{BIASP} predubezhdenie [imperfective] protiv moego nachal'nika
'I had a prejudice against my boss'
d. Vchera u menja bylo_{BIASP} tri sobesedovanija [perfective] v odin' den', segodnja tol'ko odno sobesedovanie
' Yesterday I had three talks within a day, today only one talk'
e. Vchera u menja bylo_{BIASP} sobesedovanija [imperfective]
' Yesterday I had talks'

The Russian phrase *u menja bylo* 'I had' can be accompanied by nouns such as *predubezhdenie* 'prejudice', as in (17c), where it is imperfective – because *predubezhdenie* 'prejudice' as a lexical entry denotes an entity non-bounded in time. The reason? It is because we do not know where prejudice starts and where it ends: non-boundedness and ultimately imperfectivity is contained in the lexical semantics. Conversely, if accompanied by nouns such as *sobesedovanie* 'talk', the *u menja bylo* 'I had' phrase is perfective, as in (17d). The reason is again lexical semantics. Lexical entries such as *sobesedovanie* 'talk' denote entities bounded in time: we know that a talk starts at a particular point in time and ends at another particular point in time, in contrast to lexical entries such as *predubezhdenie* 'prejudice' about which we know that they lack a definite starting-point and a definite endpoint. Finally, when *sobesedovanie* 'talk' is in the plural but accompanied by a quantifier, *tri sobesedovanija* 'three talks' as in (17d), the phrase is perfective: *tri sobesedovanija* 'three talks' is mapped onto the referent of the verb *bylo* 'was/were' in the phrase *u menja bylo* 'I had'. If *sobesedovanija* 'talks' is a bare plural NP, as in (17e), the aspectual meaning is imperfective – here non-bounded iterativity occurs.

Thus although the verbs *imet'* 'have' and *byt'* 'be' are thought to be imperfective, the relevant examples in (16) and (17) show that they should rather be regarded as biaspectual verbs whose aspectual meanings depend on the NPs associated with them. The phrase *u menja bylo* 'I had' (literally 'with me was') appears even more imperfective at first sight, but examples such as

1 (17d) demonstrate that it can also be associated with the explication of
2 perfectivity. It can easily be conjectured that the patterns *ja imel* 'I had' and *u*
3 *menja bylo* 'I had' are not productive in Russian – because temporally bounded
4 situations are easily denoted by perfective verbs. Conversely, the *have a look*
5 type of phrase is extremely widespread in English because of the absence of
6 perfective verbs and the need to signify perfective, temporally bounded
7 situations – that are otherwise impossible to express through verbs only (or
8 mainly) as in Russian.

9 Just like in English, Greek and Bulgarian, the temporal boundedness of the
10 nominal (*beseda* 'a talk', *glupost'* 'stupidity', *porazhenie* 'a defeat') is mapped
11 onto the referent of the verb, rendering its aspectual meaning perfective. See
12 the mechanism described in Kabakčiev (1999) for Bulgarian; Dimitrova and
13 Kabakčiev (2021) for Greek; Kabakčiev (2000: 211-239) for English; for
14 English also Kouteva et al. (2019: 343). And vice versa, when the nominal
15 stands for a temporally non-bounded entity, as in (17a,b,c,e), the relevant *u*
16 *menja bylo* 'I had' or *ja imel* 'I had' phrase explicates imperfectivity.

17 The impact of nominals in Russian can, of course, also be observed in
18 more – and even much more – complex sentences, and this may happen there
19 not because of the use of determiners and quantifiers but under the impact of
20 the context, in pragmatic terms. Compare the following ones in which
21 pragmatic knowledge partly interferes with quantification:
22
23 (18) a. Optimizirovat'$_{BIASP}$ [perfective] etot biznes vozmozhno, no potrebuet
24   usilij
25   'It is possible to optimize this business but it will require some efforts'
26   b. Esli ja ne mogu optimizirovat'$_{BIASP}$ [imperfective] biznesy kompanij,
27   nado menja otpravit' na kursy
28   'If I cannot optimize businesses of companies, I must be enrolled in
29   courses'
30
31 It has been known since Vendler (1957) and Verkuyl (1972) that phrases
32 like *optimize businesses* in English are imperfective as a default, in contrast to
33 phrases like *optimize these businesses*, quantified through a demonstrative,
34 which are perfective, again as a default. The picture observed with biaspectual
35 verbs in Russian and other Slavic languages is similar, but not quite the same.
36 The phrase *optimizirovat'$_{BIASP}$ etot biznes* 'optimize this business' is perfective
37 by default, due to the quantifying impact of the demonstrative *etot* 'this'. But
38 the phrase *optimizirovat'$_{BIASP}$ biznesy kompanij* 'optimize businesses of
39 companies' is not necessarily an imperfective one. It **can** be imperfective if
40 *biznesy kompanij* 'businesses of companies' is envisaged by the speaker as a
41 non-bounded entity, non-specific, corresponding to the bare NP *businesses* in
42 the phrase *businesses of companies* in English. But if *biznesy* 'businesses' is
43 envisaged by the speaker as a definite entity, corresponding to *the businesses*
44 (*of the companies*) in English, then the phrase *optimizirovat'$_{BIASP}$ biznesy* will
45 be perfective and will correspond to *optimize the businesses* (*of the companies*)
46 in English.

18

1   Note carefully that in all these examples the aspectual meaning of a
2   biaspectual verb in Russian is disambiguated as a result of the impact of
3   nominals (referents of situation participants) associated with it. In all these
4   sentences it is mainly the relevant nominal(s) that determine(s) the final
5   aspectual reading of the verb.[9] Of course, in so far as aspect in compositional
6   terms is explicated at the level of the whole sentence and not at the VP level (a
7   fundamental postulate in Verkuyl's 1972 CA theoretical model, also in
8   Kabakčiev's 2000; 2019), the subject, superficially syntactically present – e.g.,
9   as a pronoun, as in (19a,b) below (*Ja ne mogu* 'I cannot'), or not (but
10 morphologically present in the relevant ending of the verb, cf. *ne mogu*
11 'cannot-I'), also plays an important part. Consider the following examples, in
12 which the aspectual value of the biaspectual verb *optimizirovat'* 'optimize' is
13 perfective in (19a) and imperfective in (19b):

15 (19)   a. Ja ne mogu optimizirovat'$_{BIASP}$ [perfective] moj biznes
16   'I cannot optimize my business'
17   b. Nachinajushchie ne mogut optimizirovat'$_{BIASP}$ [imperfective] biznesy
18   'Beginners cannot optimize businesses'

20   The referents of the subject and the object ('I', 'my business') in (19a) are
21 temporally bounded entities by default, whose boundedness is mapped onto the
22 referent of the verb *optimizirovat'*$_{BIASP}$ 'optimize', itself non-marked for (non-
23)boundedness, singularity or iterativity, because of its biaspectuality. As a
24 result of this temporal boundedness of the two NP referents, the verb is forced
25 into signaling a situation which is bounded and singular – that is, forced into
26 perfectivity.
27   If the verb is replaced by a perfecive one, *uluchshit'* 'better', as in (20a),
28 what happens is the opposite, the referent of the verb *uluchshit'*$_{PFV}$ 'better'
29 maps its temporal boundedness onto the two situation-participant NPs,
30 rendering them temporal bounded singular entities. Thus contrary to statements
31 in the literature along the lines of "there is no test that allows to positively
32 identify perfective verbs" (Zinova and Filip 2013), it is perfectly clear why
33 sentences such as (20a) contain perfective verbs. Simply because there is no
34 other way for perfective aspect to be explicated in languages lacking nominal
35 markers of boundedness – such as all the Slavic ones (save Bulgarian). If the
36 verb in (20a) is replaced by an imperfecive one, *uluchshat'* 'better', as in (20b),
37 the referent of the imperfective *uluchshat'* 'better' maps its temporal non-
38 boundedness onto the two situation-participant NPs *ja* 'I' and *biznesy*
39 'businesses', whereby *ja* 'I' and *biznesy* 'businesses' become indefinitely
40 iterativized entities:

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[9]As already explained, perfectivity also depends on the presence of a verb with a telic potential.

1   (20)   a. Ja ne mogu uluchshit'$_{PFV}$ moj biznes
2   'I cannot better my business'
3   b. Ja ne mogu uluchshat'$_{PFV}$ moj biznes
4   'I cannot better my business'
5   c. Nachinajushchie ne mogut uluchshat'$_{IMPFV}$ biznesy
6   'Beginners cannot optimize businesses'
7
8   What happens in (19b) above is in a certain sense contrary to (20c). In
9 (19b) the subject-NP *nachinajuschie* 'beginners' does not refer to a specific
10 group of beginners but to beginners in general – the subject-NP has a generic
11 meaning. The object-NP *biznesy* 'businesses' is also temporally non-bounded
12 and the non-boundedness of both subject- and object-NP is mapped onto (the
13 referent of) the verb *optimizirovat'* 'optimize', making it signal temporal non-
14 boundeness, i.e., imperfectivity, in spite of its aspectual ambivalence
15 (biaspectuality). In (20c) the imperfectivity of *uluchshat'* 'better' governs
16 (allows or even requires) the generic or generic-like meaning of
17 *nachinajushchie* 'beginners', in contrast to perfective verbs, which normally
18 disallow association with generic NPs. All these regularities observed in
19 Russian and similar languages must be taken into account, especially the
20 circumstance that, due to the lack of articles, bare NPs in these languages are
21 not at all always non-bounded and must be interpreted as bounded or non-
22 bounded also in terms of the principles of knowledge of the world – for each
23 separate case.
24
25
26 **Conclusion**
27
28   Bulgarian and Russian are Slavic languages but they differ substantially in
29 terms of the ways of CA effectuation with biaspectual verbs. They actually
30 differ more than Bulgarian differs from Greek. Bulgarian and Greek are closer
31 along these lines, although they are languages from different branches of the
32 Indo-European genealogical tree. The preliminary expectation that in
33 prototypical languages featuring VA such as Russian CA would be explicated
34 in similar terms as in hybrid languages like Bulgarian and Greek (with VA, a
35 definite article and no indefinite) ***did not materialize***. This is because of the
36 impossibility to associate a bare NP in languages without articles such as
37 Russian solely with a non-bounded situation participant – unlike in languages
38 such as English, and partly also Bulgarian and Greek, due to the presence of
39 definite articles.
40   While in English and similar languages, where CA is effectuated through
41 the regular pattern of a definite and an indefinite article, sentences with three
42 situation-participant NPs are indicative of the CA mechanism, in languages
43 with no articles and with VA (perfective and imperfective verbs as lexical
44 items) CA cannot be effectuated through the use of biaspectual verbs in
45 sentences with three situation-participant NPs. This is because the higher the
46 number of situation-participant NPs in a sentence, the higher the possibility for

ambivalence of the NPs in terms of temporal (non-)boundedness and (in)definiteness.

It thus follows that in Russian and similar languages with VA and no articles (like Polish, Czech, Ukranian, Serbian, etc.) the lesser the number of situation-participant NPs in a simple sentence with a biaspectual verb (one at best, or two), the higher the opportunities for disambiguating the aspectual interpretation of a biaspectual verb. As for sentences with two or three situation-participant NP and a biaspectual verb, the precise manner in which aspect is systematically disambiguated would obviously have to be a serious matter for future research.

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