

BULGARIAN DA-CONSTRUCTIONS REVISITED

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0. Introduction

This paper provides an analysis of Bulgarian *da*-Constructions (daCs) which have – as a phenomenon in its own right – received only relatively modest attention in linguistic literature so far, albeit far from being unproblematic.¹

Da occur in various ways, namely (i) **dependently** within infinitive-like² daCs, and (ii) **independently** as part of the *analytic imperative*, the *negated analytic future* etc.³ The present hypothesis is able to deal with all these occurrences.

Adopting ideas from von Stechow (2006) regarding semantic tense operators (OPs) in Spec-TP, I will argue for *da* to be a lexical modalizer in T° which adds a modal (future-referring/hypothetical/irreal) component where this is missing and, hence, needed.

1. Theoretical Framework

I assume a grammar model following the Minimalist Program (cf. Chomsky 1995). Sentences are built from verb phrases (VPs) and their functional superstructure (see (1)).

Regarding semantics, I will make use of assumptions elaborated by von Stechow (2006), especially with respect to his analysis of complex tenses (§3.4). Specifically, I will adopt his claim of semantic tense OPs in Spec-TP. Within this model, verbal morphology is a mere reflex of these OPs (cf. von Stechow 2006, 47). These assumptions are schematized in (1):

$$(1) \quad [_{CP} C^{\circ} [_{TP} TENSE-OP [_{T'} T^{\circ} (_{NegP} Neg^{\circ}) [_{VP} V^{\circ} +reflex \dots]]]]$$

2. The Proposal

The essence of this proposal is based on the intuitive idea that the (person, number, tense) inflected verbs within Bulgarian daCs correspond to infinitives in infinitival languages. The *non-finiteness*, i.e. the inability to express independent tense, of this present tense morphology is supposed to be simply due to being embedded by a matrix structure. Within this analysis, *da* itself is

¹ Notable exceptions are, e.g., Schick (1970) and Krâpova (1997, 1998).

² Typologically, Bulgarian belongs within the group of „Balkan languages“. Like most of the latter, Bulgarian has lost explicit infinitival verbal morphology.

³ There are still further forms. Due to space limitation, I will not present data here.

assumed to be a lexical modalizer introducing a future-referring (hypothetical/irreal) component. From that it follows that I do not take *da* to be responsible for the ‘infinitivehood’ of daCs. It merely substitutes modal semantics where missing.

I will adopt ideas regarding the analysis of complex tenses elaborated by von Stechow (2006), apply them to infinitives and, finally, try to use them with respect to daCs. As one consequence, I will show that both infinitives and daCs are generally associated with a present tense OP.⁴ Being embeddings, both are automatically related to the matrix tense which can account for their relative temporal interpretation, i.e., their inability to express independent tense.⁵

The same holds for (indicative) *čē*-clauses in Bulgarian which compete with daCs with certain matrix verbs. Thus, the decisive difference between daCs and *čē*-clauses is the presence of modal semantics within daCs, and its absence within *čē*-clauses.

2.1 Tense Operators and Complex Tenses

I adopt von Stechow’s (2006) claim that verbal tense morphology serves merely the visualization of semantic tense OPs (in Spec-TP) which are the ‘real’ bearers of the temporal meaning. This in turn means that verbal tense morphology is merely a reflex of these OPs. Thus, von Stechow (2006, 44-45) analyses perfect tense in German (2a) as in (2b):⁶

- (2) a. Es ist heiß gewesen. (Ger)
 ‚It has been hot.‘
 b. [_{TP} es_i [_{TP} PRES^[PRES] [_T T^{o[PRES]} [_{VP} t_i [_{V'} [_{PartP} PERF^[PERF] [_{Part'} [_{AP} heiß] gewesen^[PERF]]]] ist^[PRES]]]]]].

⁴ And not, as might be expected, with an empty or even absent OP. What is relevant here is not tense, but rather agreement. The latter is unspecified with infinitives. Infinitival affixes are, then, just reflexes of absent agreement. Apparently, Bulgarian differs from infinitival languages in that it cannot have absent agreement.

⁵ This embeddedness is equally responsible for the fact that there can be neither aorist nor future tense in daCs, cf. Krâpova (1998, 81).

⁶ I use labelled bracketing to give von Stechow’s tree structures. In the following representations, I will leave the features, since they always identical with the respective tense OPs. The tense OPs themselves are ESPECIALLY FORMATTED to differ from the rest.

Thus, complex tenses become reconstructable as *pairings* of the given tense OPs. In (2), perfect tense is a result of the pairing of PRES and PERF. This can be generalized to other tenses.⁷

2.2 Tense Operators and Infinitives

Von Stechow is rather vague about infinitives. At one point (p. 46) he seems to imply that infinitives do not visualize tense OPs. I assume, however, that infinitives are indeed reflexes of Pres-OPs. The difference to finite forms is that there is no agreement with infinitives. Thus, the infinitival affix is a reflex of PRES plus *absent agreement*; cf. (3):

- (3) a. Ich muss gehen. (Ger)
 ‚I must go.‘
 b. [_{TP} Ich_i [_{TP} PRES T° [_{VP} t_i muss [_{TP} PRO_i [_{TP} PRES T° [_{VP} gehen]]]]]]].

The same analysis can be applied to German “*zu*-infinitives” which occur with non-modal matrix verbs. *Zu* is assumed to be located in T°; cf. (4):

- (4) a. Ich beabsichtigte zu kommen. (Ger)
 ‚I intended to come.‘
 b. [_{TP} Ich_i [_{TP} PAST T° [_{VP} t_i beabsichtigte [_{TP} PRO_i [_{TP} PRES zu [_{VP} kommen]]]]]]].

In accordance with von Stechow, I claim that both in (3) and (4), the infinitival affix *-en* is a reflex of PRES in Spec-TP. That it is an infinitival affix is due to absent agreement.

An open question is why there is *zu* in (4) while it is absent in (3). What purpose does it serve? The same questions can be risen with respect to English *to*, French *à* etc. I claim that the answer lies within modality, and that Bulgarian *da* is a functional relative of *zu*, *to* etc. (cf. section 2.4 below).

⁷ Pluperfect tense results from pairing PAST with PERF. As to future tense in Bulgarian and English: The employed auxiliaries (*šte* and *will*) are underlyingly associated with PRES, not FUT (they are present tense forms). Thus, analytic future is the result of pairing PRES with PRES, which should yield a present tense interpretation. That this is not the case is due to the inherent future-referring character of the auxiliaries (both *šte* and *will* descend from former volitional verbs Old Church Slavic *xoštetī* ‘want’ and Old English *will* ‘want’). Hence, the future interpretation is due to the presence of a future-referring semantic component brought by the auxiliaries. On the other hand, the future auxiliaries used in, e.g., German and Russian (*werden* and *byť*) can be seen as reflexes of FUT. Thus, the pairing of FUT and PRES yields future interpretation here.

2.3 Tense Operators and Relative Temporal Interpretation (RTI)

Since infinitives are always embedded, their tense will automatically be interpreted **relatively to the matrix tense** (not to the utterance time). Thus, both in (3) and (4), where matrix tense is present or past, the infinitival PRES is responsible for the RTI of **succession** (embedded time *after* matrix time). Depending on the meaning of the matrix verb, another RTI can be found, namely that of **concurrency** (embedded time *parallel* with matrix time).⁸

Importantly, within infinitival embeddings there cannot only be present tense. In English, one can also find perfect tense, i.e., the auxiliary occurs as infinitive, while the main predicate occurs as participle; cf. (5) and (6):

(5) He believes to have won. (Eng)

(6) He expected to have lost.

These data and their analysis can provide further support for the hypothesis that infinitives are associated with PRES. Following the lines of (3) and (4) above, (5) and (6) should be represented as (7) and (8):

(7) [_{TP} He_i [_{TP} PRES T° [_{VP} t_i believes [_{TP} PRO_i [_{TP} PRES to [_{VP} have [_{PartP} PERF won]]]]]]].

(8) [_{TP} He_i [_{TP} PAST T° [_{VP} t_i expected [_{TP} PRO_i [_{TP} PRES to [_{VP} have [_{PartP} PERF lost]]]]]]].

Since perfect tense involves an *present tense* auxiliary, it is possible to form an infinitive from the latter (recall that infinitives reflect PRES). Exactly this enables to have a ‘compound’ infinitive associated with PERF. Such an infinitive gives rise to a **preceding** RTI (embedded time *before* matrix time).

Remarkably, there can neither pluperfect nor future tense morphology within infinitival embeddings in English, German, French etc. The impossibility of pluperfect tense can be explained considering that infinitival affixes are reflexes of PRES. Since pluperfect contains a *past tense* auxiliary, it would combine PAST with absent agreement. There is, however, no morphological reflex for this pairing. Hence, a pluperfect infinitive is ruled out. This can be seen as an argument for infinitives to be indeed reflexes of PRES under absent agreement. To account for future tense to be ruled out, more assumptions are needed (see the next section).

⁸ Cf., e.g., *I believe(d) to dream*.

To summarize this section, I will give the scheme in (9). It shows the possible embedded semantic tense OPs and the respective RTIs:

- (9) **PRES:** embedded time > matrix time
 or embedded time = matrix time
PERF: embedded time < matrix time

2.4 Bulgarian daCs

After the discussion of German and English, I now turn to Bulgarian:

- (10) *Možeš da učastvaš.* (Bul)
 ',You can participate.'
- (11) *Smjatax da dojda.*
 ',I intended to come.'
- (12) *Predpolagam da si došâl.*
 ',I believe you to have come.'

As stated above, infinitives are reflexes of PRES under absent agreement. In Bulgarian, agreement is obligatory, so there can be no infinitives. To put it differently, the only available pairing is PRES plus agreement which is in line with the fact that verbs within daCs fully correspond to infinitives despite their formal finiteness. Also here, RTI is simply due to being embedded.

Importantly, embedded infinitives and finite verbs share one core property: They are reflexes of PRES. It shows that the presence of a reflex for absent agreement (i.e., the availability of infinitives) is subject to language variation.

Now, consider the analyses in (13)-(15) of (10)-(12):⁹

- (10) $[_{TP} pro_i [_{TP} PRES T^\circ [_{VP} t_i možeš [_{TP} pro_i [_{TP} PRES da [_{VP} učastvaš]]]]]]]$.
- (11) $[_{TP} pro_i [_{TP} AOR T^\circ [_{VP} t_i smjatax [_{TP} pro_i [_{TP} PRES da [_{VP} dojda]]]]]]]$.
- (12) $[_{TP} pro_i [_{TP} PRES T^\circ [_{VP} t_i predpolagam [_{TP} pro_j [_{TP} PRES da [_{VP} si [_{PartP} PERF došâl]]]]]]]]]$.

⁹ As will be argued below, there is no reason to distinguish modal verbs from other verbs in Bulgarian, since all of them lack inherent modal semantics. From that I conclude it to be legitimate to analyse the (seeming) modal *možeš* '(you) can' in (10) the same way as the non-modals in (11)-(12), i.e., I standardly assume a biclausal structure with daCs. Since agreement is obligatory in Bulgarian (see above), it is consistent to exclude PRO subjects for Bulgarian at all, so I assume *pro* subjects which can (but do not have to) be coindexed with the matrix subject.

To adopt the scheme in (9), no crucial changes are needed. Since there can be also pluperfect and imperfect tense morphology within daCs, an expansion seems nevertheless to be necessary.¹⁰ Thus, the slightly modified version of (9) is needed for Bulgarian which is given in (13):¹¹

- (13) **PRES:** embedded time > matrix time
 or embedded time = matrix time
PERF: embedded time < matrix time
IMPERF: embedded time <l matrix time
PLUPERF: embedded time << matrix time

So far, the role of *da* (as well as of *zu, to* etc.) is left undetermined. From the above made assumptions, it follows immediately that *da* is not responsible for the quasi-infinitival status of daCs. It must have another function. Consider the following examples from German and English:

- (14) a. Ich muss gehen. (Ger)
 b. I must leave. (Eng)
- (15) a. Ich beabsichtige **zu** gehen. (Ger)
 b. I intend **to** leave. (Eng)

Whereas there is seemingly no need for *zulto* with modals as in (14), they are obligatory with non-modals as in (15). A straightforward way to account for this is to assume that non-modals need *zulto* to gain a missing modal component. This is redundant for modals, since these are in fact ‘lexicalized modality’. Thus, *zulto* serve to add modal semantics where it is missing.

3. Conclusions

Like *zulto*, I claim also *da* to be a lexical modalizer. As such, it can (i) participate in daCs where it substitutes modal semantics which is absent in the matrix verbs; (ii) occur within analytic forms where its modal semantics is essential to the interpretation.¹² It is located in T^o which can explain why *da* behaves complementary to *šte*, the future particle.¹³

¹⁰ Importantly, future tense morphology is ruled out in daCs as well (cf. below).

¹¹ The symbols in (13) are mere indicators of the real temporal relations. While ‘<’ means *precedes* (perfect), ‘<l’ means *precedes and is finished/definite* (imperfect), and ‘<<’ means *precedes and there is another event inbetween* (pluperfect).

¹² This is the case with the *analytic imperative* and *negated analytic future* forms.

¹³ An independent for the inavailability of future as well as aorist tense in daCs is based on temporal and modal semantics: daCs express solely hypothetical events,

Also, the essential difference between daCs and *če*-clauses becomes clear: Whereas daCs are modal by nature, *če*-clauses are declarative. The fact that some matrix verbs can select either daCs or *če*-clauses can be given the following explanation: Whereas in some languages, modality is realized by modal verbs or special inflectional affixes, there is nothing like this in Bulgarian. This is where *da* comes into play, contributing the needed modal component. Hence, when a daC is chosen, a modal interpretation will arise, enabling a *probability* reading to express the subject's uncertainty as to the expressed proposition.¹⁴ No such reading will arise with declarative *če*-clauses. Thus, the subject's attitude will not be thematized at all.¹⁵

The present analysis has, thus, answered four important questions: (a) What is the tense of infinitives? (b) What purpose does *da* serve? (c) How can the different RTIs be explained? And (d) what is the core difference between daCs and *če*-clauses.

BIBLIOGRAPHY

- Chomsky, N. 1995, *The Minimalist Program*. Cambridge, Mass.: MIT Press.
- Krâpova, I. 1997, On Control in Bulgarian. In U. Junghanns & G. Zybatow (eds.), *Formale Slavistik*. Frankfurt am Main: Vervuert, 93-106.
- Krâpova, I. 1998, Subjunctive complements, null subjects and case checking in Bulgarian. *University of Venice Working Papers in Linguistics* 8: 73-93.
- Schick, I. P. 1970, Zur Frage der „da-Konstruktionen“ in der modernen bulgarischen Literatursprache. Ph.D. Diss., Karl-Marx-Universität, Leipzig.
- Siegel, L. in Press, Mood selection in Romance and Balkan. To appear in *Lingua*.
- von Stechow, A. 2006, Schritte zur Satzsemantik [3 parts]. Part 2. Unpublished paper. <http://www2.sfs.uni-tuebingen.de/~arnim10/Aufsaeetze/index.html>

hence future tense is ruled out since it assigns a truth-value. The aorist, in turn, must be directly linked with the utterance time which makes it inappropriate for daCs which are, as embeddings, always linked to the matrix time (cf. Krâpova 1998, 81).

¹⁴ Cf. Siegel (in Press), dubbing this concept *Subject Certainty*. In Schick (1970), the same concept is named *Wahrscheinlichkeitsaspekt* 'probability aspect'.

¹⁵ With perception verbs like *čuvam* 'hear', the choice of daCs vs. *če*-clause seems to make no difference at all. However, perception verbs are generally somewhat problematic, sometimes also characterized as *counter-* or *semifactuals*. Thus, albeit the perceived events seem to be beyond the notion of the subject's (un)certainly at first sight, there might be conceivable other situations (or worlds) in which the perceived event did not (or is not expected to) take place by the subject/speaker.