# Bulgarian moods\*

This paper concerns Bulgarian da-constructions (daCs), phrasal structures that correspond to subjunctive or infinitival structures in other languages. In combining two theoretical contributions on the syntax and semantics of Bulgarian subjunctives, an attempt is made to reconsider the Bulgarian mood system, focussing on daCs. The crucial claim is that daCs mark the absence of the indicative being associated with the supposition of subject certainty (Siegel 2009). Accordingly, da is a semantically vacuous mood marker chosen when the indicative would cause a semantic failure. By adding Krapova's (2001) distinction between [+T] and [-T] daCs, their correspondence to subjunctive or infinitival structures in other languages follows immediately.

#### 1. Introduction

This paper is about mood in Bulgarian, with a focus on da-constructions (daCs). DaCs correlate with subjunctive or infinitival structures in languages that explicitly mark the finite/non-finite distinction (Krapova and Petkov 1999: 108; Tomić 2006: Chapter 6); cf. (1).

(1) a. Nadjavax se [ da dojdeš ]. (subjunctive-like)

hope<sub>AOR. ISG</sub> REFL DA come<sub>2SG</sub>

'I hoped that you would come.' (Krapova and Petkov 1999: 275)

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b. Ivan se opita [ da razbere văprosa ]. (infinitive-like) Ivan REFL try $_{AOR.3SG}$  DA understand $_{3SG}$  question $_{DEF}$  'Ivan tried to understand the question.' (Krapova and Petkov 1999: 265)

My proposal combines aspects of two existing analyses. The crucial goal is to demonstrate that—despite different perspectives on the topic—these approaches do not contradict but rather complement one another, and that their conjunction allows a coherent characterization of the Bulgarian mood system. The first analysis is Krapova (2001) considering the syntax of Bulgarian daCs. The second one is Siegel (2009) revisiting the semantics of the subjunctive in Balkan languages. Moreover, I will take a closer look at the Bulgarian future tenses formed with šte 'will' and štjax 'would', respectively, as šte is in complementary distribution with daCs, while štjax selects them.

The goal of this paper is thus not to present an utterly new analysis of the syntax and semantics of daCs. Rather, my aim is to bring together existing accounts so as to contribute to the overall characterization of the Bulgarian mood system. I assume that Bulgarian has finite and non-finite daCs—a distinction that is, however, not based on properties of da itself, but rather on the T(ense) head of the clause containing it (cf. Krapova 1997, 1998, 2001; Krapova and Petkov 1999). Regarding da, I argue that its function is to mark the absence of the indicative with its specific supposition of subject certainty (cf. Siegel 2009). This means that da is exclusively associated with the Cf. syntactic analyses in, a.o., Rudin (1985, 1988), Rivero (1994, 2005), Penčev (1998), Krapova (1997, 1998, 2001), Krapova and Petkov (1999), Pitsch (2010). Cf. semantic analyses in, a.o., Weigand (1907), Goląb (1954), Maslov (1956, 1962), Genadieva-Mutafčieva (1970, 1976, 1979), Petkova Schick (1977), Kramer (1992), Viktorova (2005), Laskova (2009), Siegel (2009), Smirnova (2008, 2010, 2011, 2012). Cf. more general considerations in, a.o., Bernštejn (1961), Genadieva-Mutafčieva (1962, 1967), Popov (1968), Lempp (1981), Maslov (1981), Tilkov et al. (1983, 1994), Hauge (1999), Lindstedt (2010).

category of mood. The combination of these assumptions allows an explanation of why Bulgarian daCs correspond to subjunctive or infinitival structures in other languages.

The paper is structured as follows: Section 2 concerns the syntax of daCs. In Section 3, I discuss the notoriously vague notion of finiteness, so as to be able to appropriately present Krapova's distinction of two types of daCs in Section 4, where I also introduce the notions of subject and tense non-/identity. Mood is addressed in Section 5. In Section 6, I take a closer look at the future tenses. Section 7 reviews assumptions on the semantics of daCs. Section 8 deals with the syntactic distribution of daCs and their possible interpretation as following from my claims. After a sideglance at da in Serbian in Section 9, the paper is summarized in Section 10.

### 2. The syntax of da-constructions

Crucial questions with respect to the syntax of daCs concern their format as well as the category of da itself. The first fact to notice should be that "Bulgarian resembles other Balkan languages and lacks 'restructuring'/clitic climbing, which is why clitic pronouns must remain in the embedded clause/phase without exception" (Rivero 2005: 1086; see also Rivero 2009: 191); cf. (2).

(2) Možeš li (\*mi) (\*gi) [ da (mi) (gi) pokažeš ]?  $can_{2SG} \ Q \ CL_{ISG,DAT} \ CL_{3PL,ACC} \ DA \ CL_{ISG,DAT} \ CL_{3PL,ACC} \text{ show}_{2SG}$ 'Can you show them to me?' (Rivero 2009: 191)

Considering this fact, it is legitimate to conclude that *da*Cs are larger than TPs (cf., Lenertová 2004: 172). Considering, furthermore, the common assumption that only

v and C are phasal heads, I argue that daCs are full CPs.<sup>2</sup> Noticeably, this does not exclude raising from and control into daCs. Cross-linguistically, these options seem to be facilitated by the non-indicative nature of the relevant embeddings; cf. (3) and (4).

(3) Tja<sub>i</sub> može [  $t_i$  da piše pismoto ]. (raising) she<sub>NOM</sub> can<sub>3SG</sub> DA write<sub>3SG</sub> letter<sub>DEF</sub> 'She can write the letter.'

(4) Petăr<sub>i</sub> iskaše [ PRO<sub>i</sub> da čete ]. (control)

Peter<sub>NOM</sub> want<sub>IPF.3SG</sub> DA read<sub>3SG</sub>

'Peter wanted to read.' (Rivero 2005: 1085)

Concerning the category of da, there are two competing views: While some authors analyze da as a complementizer, others argue that it is a modal particle. Thus, Penčev (1998), Krapova (1998), and Krapova and Petkov (1999) locate da in the head of CP;  $^3$  cf. (5).

(5)  $[_{CP} da [_{TP} T [_{VP} ... V ... ]]]$  (cf. Krapova and Petkov 1999: 278)

number of daCs contain a complementizer located in C (e.g., če 'that').

<sup>&</sup>lt;sup>2</sup> Rivero (1994, 2005: 1085) analyzes *da*Cs as MPs. For three reasons, I prefer a CP analysis: First, MP is part of the I(nfl) domain, hence a full clause equates a full CP. Second, M is no phasal head. Third, a

<sup>&</sup>lt;sup>3</sup> More precisely, they locate da in the head of FinP, assuming Rizzi's (1997) split CP framework. Still, the authors attribute the finiteness of daCs to the properties of T, not to da in Fin.

<sup>&</sup>lt;sup>4</sup> I simplify syntactic representations and omit projections of minor relevance, i.a. AspP and νP. Cf. more articulated structures in, a.o., Rivero (1994), Krapova (1999), or Tomić (2008).

On the other hand, Rivero (1994, 2005), Krapova (2001), and Tomić (2008) argue that *da* is the head of a M(ood)P. Being part of an articulated I(nfl) domain, the latter is situated between CP and TP; cf. (6).<sup>5</sup>

The last view is based on word order and more common in Bulgarian linguistics: While da is strictly adjacent to the inflected verb, "true" complementizers such as  $\check{c}e$  'that' need not be (cf. Krapova and Petkov 1999: 281–82). This may, however, be attributed to da being a (pro)clitic. More crucially, complementizers are involved in clause-typing which is typically associated with the CP domain. Da, on the other hand, does not seem to have any influence on the type of the clause it is part of, as it occurs in a wide variety of clause types (see Section 8). Moreover,  $\check{c}e$  (like dali 'whether', deto 'that', and ta 'that'; cf. Rudin 1985: 60) and da co-occur in result clauses, with  $\check{c}e$  marking subordination, while da is a mood marker. Finally, da is in complementary distribution with  $\check{s}te$  'will' (see Section 6) and bix 'would' which are modal clitics, too (cf. Rivero 1994: 65; Tomić 1996: 832). Due to these facts, I argue that da is a modal particle located in M as depicted in (6). To indicate that M is also the base position of  $\check{s}te$ , and that it may also be phonetically null, I add these options in (7).

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<sup>&</sup>lt;sup>5</sup> Rivero (1994: 64) and Tomić (2008: 464) use "T/AgrP", while Rivero (2005: 1101) uses "IP/TP/MP". Tomić (2008: 461–64) differentiates a Mod(ality)P (*šte*) from a MoodP (*da*). Rudin (1985) argues *da* to be an auxiliary attached to VP and notes that it "clearly expresses modality" (Rudin 1985: 62).

<sup>&</sup>lt;sup>6</sup> Other than *šte*, the forms of *šta* 'want' are non-clitic and merged in V (cf. Rivero 1994). Being lexical verbs, they select *da*Cs to form biclausal structures: the past future and the past future perfect. The same analysis works for the negated future (*njama da*); see Section 6.

(7) 
$$[_{CP} C [_{MP} {\varnothing/\check{s}te/da} ] [_{TP} T [_{VP} ... V ... ]]]]$$

A further issue is the obligatory movement of finite verbs/auxiliaries in Bulgarian (cf. Rivero 1994: 64; 2005: 1088, 1103). To be more precise, inflected verbs/auxiliaries marked for person/number obligatorily appear in a higher position as compared to their base position in V/Aux. According to (7), this higher position is M. While Rivero (1994) explains the phenomenon as syntactic movement from V to an affix in T/Agr, she argues in subsequent works (Rivero 1999a, 1999b, 2000) that it takes place in PF (Rivero 2005: 1103). Since it is beyond the scope of my investigation, I stay agnostic as to the motivation and nature of this movement and restrict myself to the claim that verbs marked for agreement end up in M. If M is overt, the verb appears to the right of *šte* or *da*, respectively; cf. (8).

(8) 
$$\left[ \underset{\text{CP}}{\text{CP}} \text{C} \left[ \underset{\text{MP}}{\text{MP}} \left\{ \varnothing / \check{s}te/da \right\} + \text{V} \dots \left[ \underset{\text{VP}}{\text{V}} \dots t_{\text{V}} \dots \right] \right] \right]$$

Concerning subject movement, Rivero (2005: 1089) notes that nominative subjects usually precede *šte* and *da*. To avoid the problem of "excessive numbers of specifiers for which there is no empirical evidence", she suggests an EPP-feature: "If modal and future markers form an extended projection with the verb [...] and there is only one EPP-feature for the complex, then subjects can be generated in the VP [...] and may raise to the highest projection in one swoop, without intermediate specifiers" (Rivero 2005: 1089); cf. (9).

(9) 
$$[_{CP} C [_{MP}$$
 **subject**  $\{\emptyset/\check{s}te/da\}+V ... [_{VP} t_{subject} t_{V} ... ]]]]$ 

Note, however, that subject movement is merely the usual case, not obligatory.<sup>7</sup> The subject may also stay *in situ* in VP, resulting in its postverbal position as the verb obligatorily attaches to M; cf. (10).

(10) 
$$[_{CP} C [_{MP} {\varnothing/\check{s}te/da}]+V ... [_{VP}$$
 **subject**  $t_V ... ]]]$ 

#### 3. Finiteness

Finiteness is a notoriously vague notion in linguistics (cf. Eide 2016: 1; Cowper 2016a). *Inter alia*, "finite" may relate to the following observations: (i) a verb heads an independent clause; (ii) a clause contains a verb marked for person/number; (iii) there is a subject in the nominative case; (iv) verb and subject agree in person/number; (v) there is a tensed verb form; (vi) a clause (or sentence) forms a full proposition.

Some of these criteria may co-occur in specific frameworks. For instance, while Chomsky (1995, 2001) argues that nominative (NOM) licensing and subject-verb agreement are two manifestations of the same Agree relation between I/T and the subject, Pesetsky and Torrego (2001) claim that the NOM is a morphological reflex of an uninterpretable Tense feature on the head of the subject DP.

<sup>&</sup>lt;sup>7</sup> Rudin (1985: 61) shows that the position in front of da/M is a (contrastive) focus position. But since the surface word order of Bulgarian sentences is TOPIC C FOCUS [M/da] (cf. Rudin 1985: 20), and since the majority of daCs lack an overt C, a constituent moved in front of da can usually be either topic or contrastive focus. When the constituent remains *in situ* as in (10), it is information/neutral focus.

While these authors associate finiteness with the functional head I/T, Kayne (1994) argues that finiteness requires I to incorporate into C. A similar view is taken in recent minimalist accounts (e.g., Chomsky 2007; Richards 2007), where T is claimed to inherit features from C. For Rizzi (1997), finiteness is associated with the CP domain, more precisely with the special functional head Fin.

A rather different view is held by Stowell (1982, 1995) and Wurmbrand (1998): Non-finite clauses ([-finite]) may be specified as either [+tense] or [-tense]. This means that [-finite] does not imply [-tense], and that [+tense] does not imply [+finite]. Instead, finiteness is "a syntactic phenomenon, indicating the presence of a functional domain, but not necessarily only the CP" (Todorović and Wurmbrand 2015a: 2). This view, however, leaves open how the use of [±tense] relates to its more familiar use (which I adopt) to indicate finiteness (cf. Cowper 2002: 5).

Modern Bulgarian has lost the morphological infinitive.<sup>8</sup> As a consequence, any modern Bulgarian verb is marked for agreement. This poses a problem for theories that associate finiteness with verb-subject agreement. Associating finiteness with NOM licensing circumvents this problem. With Pesetsky and Torrego (2001), I assume that [+T]<sup>9</sup> is a prerequisite for NOM licensing, with the result that the occurrence of a NOM

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<sup>&</sup>lt;sup>8</sup> There is a "residual infinitive" hardly ever used in contemporary language (cf. Gutschmidt 2002: 230). If anything, it occurs in fixed expressions like with *nedej/te* 'do not' where it can easily be discriminated from the homonymous 2/3sG form of the agrist tense.

<sup>&</sup>lt;sup>9</sup> I adopt Krapova's (1998, 2001) notation according to which [+T] and [-T] indicate the presence or absence, respectively, of a temporal specification in the functional head T(ense).

subject is a diagnostic for finiteness.<sup>10</sup> Since Bulgarian is a *pro*-drop language, one faces the problem that subjects do not always show up at the surface. Still, it should be possible to replace a zero *pro* with an overt DP as far as the clause is finite; cf. (11).

- (11) a. Ivan<sub>i</sub> iskaše [  $toj_{i/j}/pro_{i/j}$  da ostane pri nego<sub>j/i</sub> ]. Ivan<sub>NOM</sub> want<sub>IPF,3SG</sub> he<sub>NOM</sub> DA stay<sub>3SG</sub> with him 'Ivan wanted (him) to stay with him.'
  - b. Ivan<sub>i</sub> uspja [ PRO/\*brat mu<sub>i</sub> da ostane pri nego<sub>j</sub> ].
     Ivan<sub>NOM</sub> manage<sub>AOR.3SG</sub> brother<sub>NOM</sub> his DA stay<sub>3SG</sub> with him
     'Ivan managed to stay with him.' (Krapova and Petkov 1999: 268)

The daC in (11a) is finite, while the one in (11b) is non-finite. Krapova and Petkov (1999: 273–78) apply further tests: Finite daCs allow diverse tense forms, while non-finite daCs allow the morphological present only; cf. (13). The finite examples in (12) involve the present perfect, the past perfect, and the imperfect, respectively.

(12) a. Te kazaxa [ da sa bili u lelini ]. (finite) DA be<sub>3PL</sub> be<sub>PART,PL</sub> at aunt they say<sub>AOR.3PL</sub> 'They said to have been with their aunt.' (Petkova Schick 1977: 175) b. Vidjax [ na ulicata da se beše strupala goljama tălpa]. saw<sub>AOR, ISG</sub> on street<sub>DEF</sub> DA REFL be<sub>IPF, 3SG</sub> gather<sub>PART, SG, F</sub> large crowd 'I saw that, on the street, a large crowd had gathered.'

(Petkova Schick 1977: 176)

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<sup>&</sup>lt;sup>10</sup> In a similar vein like Krapova (1998, 2001) and Krapova and Petkov (1999), Cowper (2016a: 7) argues that Modern Greek *na*-subjunctives (resembling Bulgarian *da*Cs in many respects) may be finite or non-finite depending on their case-assigning properties.

- c. Čuvax ja [ da plačeše po celi nošti ].
   hear<sub>AOR. ISG</sub> CL<sub>3SG.F</sub> DA cry<sub>IMPF. 3SG</sub> at whole nights
   'I heard her crying whole nights.' (Petkova Schick 1977: 175)
- (13)\*Ivan ne moža [ da napišeše / beše napisal pismoto ].

  Ivan<sub>NOM</sub> NEG can<sub>IPF.3SG</sub> DA write<sub>IPF.3SG</sub> be<sub>IPF.3SG</sub> write<sub>PART.SG.M</sub> letter<sub>DEF</sub>

  intended: 'Ivan could not have written the letter.' (Krapova and Petkov 1999: 277)

Furthermore, finiteness is accompanied by the ability of a clause to denote an independent proposition and have a distinct time frame, as confirmed by the possibility of different temporal adverbs in the embedded and the matrix clauses; cf. finite (14a) with non-finite (14b).

- (14) a. **Včera** rešix [ **utre** da ne puša poveče ].

  yesterday decide<sub>AOR.1SG</sub> tomorrow DA NEG smoke<sub>1SG</sub> anymore

  'Yesterday, I decided that tomorrow I would give up smoking.'

  (Krapova and Petkov 1999: 276)
  - b. \*Včera zabravix [ da zamina utre ]. yesterday forget $_{AOR,ISG}$  DA leave $_{ISG}$  tomorrow (Krapova and Petkov 1999: 277)

The above-mentioned assumptions about finiteness are summarized in Table 1. I will take them as a basis in the following sections.

 Table 1. Non-/Finiteness in Bulgarian

Tuble 10 1 (on /1 mitchess in Bulgarian			
	Agr(eement)	T(ense)	NOM
finite	[+Agr]	[+T]	✓
non-finite		[-T]	*

## 4. Two types of da-constructions

In a number of articles, Iliana Krapova distinguishes two types of daCs. After introducing her analysis, I will argue that there is a correlation between the type of daC and the relations of subject non-/identity and/or tense non-/identity, respectively.

#### 4.1. Finiteness not in da

Krapova (1997, 1998, 2001) and Krapova and Petkov (1999) distinguish two types of daCs, dubbed Type I S[ubjunctive]s and Type II Ss. This distinction is grounded on referential and syntactic differences of the null subjects involved; cf. Table 2.

**Table 2.** Null subjects in daCs (Krapova and Petkov 1999: 268)

	Type I S	Type II S
	pro	PRO
Reference	+pron	+anaph
Alternation with a lexical DP	yes	no
Expletive	yes	no
Split antecedent	yes	no
Covariant interpretation	yes	no
Arbitrary effects	yes	no
Thematic constraints	no	yes

The pronominal subject of a daC may be pro or PRO. Krapova claims that "the relevant factor [for the presence of pro or PRO] is the referential (and morphological) content of embedded Tense." She argues "that Tense comes in two varieties— $T_{nom}$  and  $T_{null}$ . The former corresponds to [+T] specification and checks Nominative Case, while the latter corresponds to [-T], to indicate lack of temporal specification, and checks Null Case". Finally, "the control relation in Type II Ss is not imposed by the anaphoric

properties of PRO, but follows from, or at least correlates with the specific temporal reference of the clause in which it is licensed" (Krapova 1998: 80).

Assuming the characterization of non-/finiteness in Table 1, Krapova's proposal amounts to a distinction of finite and non-finite daCs. This means that modern Bulgarian exhibits non-finite syntactic structures despite lacking a morphological infinitive.

#### 4.2. Similarities and differences

As concluded in Section 2, all *da*Cs are CPs, the head of which is usually zero (but see Section 8.2). Furthermore, *da*Cs have *da* in M selecting a TP. They differ in the specification of T. Since finiteness is connected to being tensed, and since NOM licensing requires [+T], a NOM subject is licensed in *da*Cs with [+T], but not in *da*Cs with [-T]; cf. (15) (example from Krapova and Petkov 1999: 270).

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(15) Ivan
                          smjata
                  ne
       Ivan<sub>NOM</sub> NEG
                         consider<sub>3SG</sub>
          [ Petăr<sub>i</sub>
                              može
                                                                                         (finite daC)
                          da
             Peter<sub>NOM</sub> DA can<sub>3SG</sub>
             [ t_i (*toj/*pro) da zamine
                                                                      ]].
                                                                                    (non-finite daC)
                                                      vednaga
                                    DA leave<sub>3SG</sub> immediately
                         he
       'Ivan does not consider Peter capable of leaving immediately.'
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Another difference connected to the specification of T is the availability of certain tense forms. Mostly, the verb in daCs is in the present. It may, however, also be in the present perfect, the past perfect, and the imperfect as shown in (12) above (cf. also

Krapova and Petkov 1999: 274; Laskova 2009). On the other hand, the aorist, the future (perfect), and the past future (perfect) are completely ruled out in *da*Cs (cf. Krapova 1998: 81; Rivero 2005: 1088); cf. (16).<sup>11</sup>

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(16)*Ivan iska [ da pisa / šte piše / Ivan<sub>NOM</sub> want<sub>3SG</sub> DA write<sub>AOR.3SG</sub> FUT write<sub>3SG</sub> šteše da piše pismoto ].

FUT<sub>IPF.3SG</sub> DA write<sub>3SG</sub> letter<sub>DEF</sub>
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The futures will be dealt with in Section 6. As concerns the possible reasons for the exclusion of the aorist, there are at least two, presumably interrelated, explanations: Krapova (1998: 81) argues that the aorist has to be directly linked to the utterance time, so it cannot rely on any other reference point. This is to be seen in the light of her claim that embedded *da*Cs lack an independent tense value, so that their tense can only be evaluated relative to the matrix. Krapova adds that the aorist is generally incompatible with a hypothetical interpretation. This, in turn, is connectable to another line of argument, according to which the aorist marks a situation as finished in time (cf.

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<sup>&</sup>lt;sup>11</sup> In (16), I omit the future perfect and the past future perfect. These contain an auxiliary plus *l*-participle instead of the simple present verb form *piše* '(s/he) writes'.

<sup>&</sup>lt;sup>12</sup> Krapova's claim covers finite and non-finite daCs. But while the event denoted by non-finite daCs is aspectually non-distinct from the matrix event and lacks a distinct time frame, finite daCs denote an independent event and have an own time frame. But still, their tense is anchored relative to the matrix. Indicative  $\check{c}e$ -clauses, on the other hand, denote independent events and have completely independent tense, which is why they may contain the tenses excluded from finite daCs; cf. (i).

<sup>(</sup>i) Ivan znae, [ če Petăr (šte) piše / pisa pismoto ]. Ivan<sub>NOM</sub> know<sub>3SG</sub> that Peter<sub>NOM</sub> FUT write<sub>3SG</sub> write<sub>AOR.3SG</sub> letter<sub>DEF</sub> 'Ivan knows that Peter is writing/will write/wrote the letter.'

Sonnenhauser 2006: 131; 2012: 359–60).<sup>13</sup> If a situation is (presented as) finished, it surely cannot also be (presented as) hypothetical.

As already mentioned, the verb in *da*Cs may be in the present, but also in the present perfect, the past perfect, and the imperfect. Krapova and Petkov (1999: 274) point out that the full choice is available in finite *da*Cs, whereas verbs in non-finite *da*Cs "appear only in the present tense, irrespective of the tense of the matrix clause" (Krapova and Petkov 1999: 277). Krapova (1998: 83) notes "that it could be argued that the embedded present tense [in non-finite *da*Cs] is pleonastic in that it has no semantic function other than signaling lack of independent tense". Similarly, Krapova and Petkov (1999: 278) argue that the relevant instances of the present represent a "Tense zero", while Petkova Schick (1977: 175) dubs them "neutral present". Taking a crosslinguistic perspective, Picallo (1985) claims that tense in subjunctives is generally deficient (cf. Giannakidou 2009 with respect to Modern Greek *na*-subjunctives).

Apparently, the present tense forms in non-finite daCs are really only morphological present, hence forms marked for person/number only. Consequently, Bulgarian present forms are ambiguous between [-T,+Agr] and [+T,+Agr]. In the absence of a morphological infinitive, it is fair to say that forms with [-T,+Agr] are infinitive substitutes.

<sup>&</sup>lt;sup>13</sup> The notion of finishedness differs from completedness as marked by aspect: While completedness concerns boundaries inherent to a situation, finishedness relates to external/temporal boundaries.

## 4.3. Subject non-/identity and tense non-/identity

Building on the dichotomy of finite and non-finite daCs, I suggest a correlation with the properties of subject non-/identity and/or tense non-/identity. This is to say that finite daCs are employed when the embedded subject differs from the matrix one, and/or when an independent event with a distinct time frame is denoted. On the other hand, non-finite daCs—much like infinitives in other languages—are used when both clauses share the same subject, and/or when the event of the embedding is completely dependent on, or even identical with, the matrix event and lacks a distinct time frame.

The phenomenon of subject non-/identity is illustrated in (15): While the lower non-finite  $da\mathbb{C}$  shares its subject ( $Pet\check{a}r$ ) with the higher finite  $da\mathbb{C}$  (subject identity), the subjects of the latter differs from that of the matrix (subject non-identity).

Tense non-/identity is illustrated in (14): The finite daC in (14a) denotes a distinct proposition with a distinct time frame. Accordingly, it is specified with [+T], and its tense differs from the matrix one (tense non-identity). By contrast, the non-finite daC in (14b) lacks a distinct time frame (tense identity) as evidenced by the ungrammaticality of utre 'tomorrow'. Presumably, this is related to the fact that non-finite daCs may denote bare events (entities of logical type e; cf. Higginbotham 1983) that are usually expressed by means of bare infinitives in other languages. 14

Regarding Romance languages, Farkas (1992) proposes that subject non-identity follows from the competition between two moods: subjunctive and infinitive. Her account is a blocking approach (cf. Aronoff 1976), as a more specific (restricted) choice is claimed to block a more general one. But Farkas excludes the possibility that such a

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<sup>&</sup>lt;sup>14</sup> The bare event analysis is put forward by Cowper (2016a, 2016b) for non-finite Greek *na*-phrases.

competition is active in Balkan languages. My claim, however, is that it exists in Bulgarian where non-finite daCs function as infinitive substitutes.

More precisely, non-finite daCs are more specific (restricted) than finite daCs in that their subject is necessarily identical with that of the matrix. With finite daCs, on the other hand, subject identity does not have to obtain (though it is possible when the embedded subject is overt if emphasized). Moreover, non-finite daCs are more specific in that their tense is necessarily construed as simultaneous/identical with the matrix, whereas the tense of finite daCs is more independent. The prediction is that non-finite daCs are chosen when subject identity and/or tense identity obtain. The underlying principle is economy: Non-finite daCs are less "costly" in that they neither require NOM licensing nor a tense specification. This being so, they are preferred when there is no need for either of these ingredients.

#### 5. Mood

According to Palmer, "the term 'mood' is traditionally restricted to a category expressed in verbal morphology. It is formally a morphosyntactic category of the verb like tense and aspect, even though its semantic function relates to the contents of the whole sentence. But traditionally its verbal nature is not in doubt." (Palmer 1986: 21) After considering modal verbs and verbal inflection as expressions of modality and mood, the author adds that "['inflection'] should be used in a wide sense to include what may have been described by authors as 'particles', if they have a fixed place in the verbal complex." (Palmer 1986: 43–44)

Da is a particle with a fixed position in the Bulgarian verbal complex, and involved in the expression of mood. Hence I conclude that da is a mood particle.

As is standard, I take indicative and subjunctive to be the values of mood. Embedded examples are given in (17) and (18).<sup>15</sup>

- (17) Ivan se nadjava, [ če Petăr e zaminal veče ]. (indicative)

  Ivan REFL hope<sub>3SG</sub> that Peter be<sub>3SG</sub> leave<sub>PART.SG.M</sub> already

  'Ivan hopes that Peter has already left.' (Krapova and Petkov 1999: 282)
- (18) Ivan se nadjava [ Petăr da e zaminal veče ]. (subjunctive) Ivan REFL hope<sub>3SG</sub> Peter DA be<sub>3SG</sub> leave<sub>PART,SG,M</sub> already 'Ivan hopes that Peter has already left.' (Krapova and Petkov 1999: 282)

The subjunctive in (18) is formed by adding *da* to the indicative in (17). This shows that the indicative is morphosyntactically unmarked. In Section 7.1, I will show that the reverse holds true from a semantic point of view.

There is no consensus on whether or not both mood values correlate with semantic/presuppositional content. Assuming that they do, one has to define meanings for both of them that are sufficiently flexible to account for their distribution. An alternative is to analyze one of the values as a semantically vacuous default to be chosen whenever its contentful (more specific) counterpart is blocked, as its use would cause a semantic/presuppositional failure. The latter variant is more economic as it requires fewer assumptions. The crucial question is, however, which variant can explain the data.

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<sup>&</sup>lt;sup>15</sup> According to Krapova and Petkov (1999: 282), (17) "expresses the speaker's commitment to the factual status of the embedded proposition, while in [(18)] it [the subjunctive] expresses the speaker's belief in the possible realization of the embedded event".

Concerning Bulgarian, both positions are maintained in the literature. While Smirnova (2012) claims that both indicative and subjunctive have presuppositional content, Siegel (2009) argues that only indicative is associated with semantics, whereas subjunctive is a default. In Section 8, I discuss these proposals, ultimately opting for Siegel's view.

#### 6. Future tenses

According to most grammars, Bulgarian has four futures: (simpel) future, future perfect, past future, and past future perfect.<sup>16</sup> The future and the future perfect involve the particle *šte* 'FUT' (roughly 'will'), while the past future and the past future perfect contain the auxiliary *štjax* 'would', which is the imperfect of *šta* 'want'<sup>17</sup>. Both *šte* and

<sup>16</sup> Past future and past future perfect (also called "future (perfect) in the past") are usually characterized as non-indicative tenses, since, similar to *da*Cs, they report situations as hypothetical. But unlike *da*Cs, they relate to the past. Rivero (2005) analyzes them as biclausal "with main clause auxiliary and subordinate auxiliary/verb both morphologically inflected for finiteness" (Rivero 2005: 1085). She gives the example in (i-a) and argues that it is structurally similar to (i-b), the biclausal analysis of which is standard.

```
(i) a. Štjax [ da [ săm čel ]]. (Rivero 2005: 1085) would ISG DA be ISG read PART.SG.M

'I would have read.'
b. Petăr iskaše MP[ da [ čete ]]. Peter<sub>NOM</sub> want<sub>IPF.3SG</sub> DA read 3SG

'Peter wanted to read.'
```

I adopt the biclausal analysis, but argue that the embedded daC is a non-finite CP. Thus, the two "tenses" in question resemble structures with modal auxiliaries in languages that have infinitives. The English equivalents in (i-a) and (i-b) illustrate this resemblance.

(i) a. 
$$pro$$
 štjaxme [ $_{CP}$  da[ $_{-T}$ ] razgledame ] (ii) a.  $pro$  štjaxme [ $_{CP}$  da[ $_{-T}$ ] sme razgledali ] (Bul) would  $_{IPL}$  DA look  $_{IPL}$  b. we would [ $_{VP}$  look $_{INF}$ ] b. we would [ $_{VP}$  have  $_{INF}$  looked ] (Eng)

<sup>&</sup>lt;sup>17</sup> To express the lexical meaning 'want', *šta* is nowadays archaic and replaced by *iskam*. In turn, the inflected (imperfect) forms of *šta* are restricted to the past future (perfect) in modern Bulgarian.

stjax are continuations of Old Bulgarian xotěti 'want', but while štjax has remained a verb (in V), šte has developed into a particle<sup>18</sup> (in M). Nonetheless, both have (inherited) an element of volitional modality. This matches with analyses (Abusch 1985, 1988; Condoravdi 2001; Kaufmann 2005; see also Todorović and Wurmbrand 2015a: 6) claiming that the English will-future is semantically made up of the modal force WOLL and the semantic PRESENT. In Bulgarian, both components seem to be fused in the case of šte, while WOLL combines with the PAST in the case of štjax. This analysis allows one to explain at least three facts concerning the relevant futures:

- (i)  $\check{S}te$  is in complementary distribution with da.<sup>19</sup> The explanation is that both are modal markers in M. But while  $\check{s}te$  is (future) indicative, da is non-indicative.
- (ii)  $\check{S}tjax$  takes daCs as complements. Arguably, this selection is licensed semantically, as the modal character of  $\check{s}tjax$  can only combine with hypothetical, unrealized (hence non-indicative) situations.
- (iii) All relevant futures are solely finite. The explanation is that they are based on a semantic PRESENT or PAST, so they are inherently tensed/finite (see Section 3).

It should be noted that, since they denote hypothetical situations, the relevant futures can replace the conditional periphrasis (bix 'would' + l-participle) in conditional sentences. According to Büttner (2014: 890), this replacement gives rise to an interpre-

an invariable auxiliary. While I agree that the function of šte is auxiliary-like, both its morphological

invariability and syntactic combination with da-less verb forms distinguish it from common auxiliaries.

<sup>19</sup> The standard negation of the future particle *šte* is the invariable *njama da* ('there is not DA'), while in some dialects it is *ne šte* ('NEG FUT'). Rivero (1994, 2005: 1085) offers a biclausal analysis for *njama da*-sentences, *njama* being a matrix raising verb/auxiliary inflected for tense and with default person/number.

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 $<sup>^{18}</sup>$   $\check{S}te$  is homonymous with the 3SG of  $\check{s}ta$ , but as it combines with any present tense verb form to form the future, its status as a particle seems beyond doubt. See, however, Rudin (1985: 61–63) who treats  $\check{s}te$  as

tation of CERTAINTY, absent with the *bix*-conditional. This parallels Siegel's (2009) claim that the Bulgarian indicative adds the supposition of SUBJECT CERTAINTY, whereas the subjunctive does not (see Section 7.2). From that, it is fair to conclude that the futures under discussion belong to the indicative.<sup>20</sup>

This gives us the Bulgarian mood system in Table 3. It combines Krapova's distinction of two types of *da*Cs with the above assumptions about mood. I exclude *štjax* since it is base-generated as a modal verb in V, not as a mood marker in M.

**Table 3.** Verbal mood in Bulgarian (version I)

	,		
INDICATIVE		[ <sub>_</sub> T]	Ø/šte
NON-INDICATIVE	SUBJUNCTIVE	[+1]	d <sub>a</sub>
	INFINITIVAL	[-T]	da

## 7. The interpretation of da-constructions

There is a long-standing debate in the literature on whether or not daCs really correlate with the SUBJUNCTIVE (IRREALIS). Authors arguing for the view that daCs are an analytic subjunctive are, a.o., Weigand (1907), Seliščev (1952), Maslov (1962), Bernštejn (1961), Kramer (1992), Siegel (2009), and Smirnova (2010, 2012). Others deny this view either completely or partially. There are two positions: (a) Bulgarian lacks a subjunctive altogether (e.g., Genadieva-Mutafčieva 1970); (b) daCs are not necessarily subjunctives, but may have a whole range of functions, most of them with a modal interpretation, i.a. "pseudo-infinitive" (e.g., Popov 1968; Genadieva-Mutafčieva 1976; Petkova Schick 1977; Lempp 1981; Maslov 1981; Tilkov et al. 1983, 1994; Krapova 1997, 1998, 2001; Krapova and Petkov 1999; Ivanova 2014). I rank among the second

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<sup>&</sup>lt;sup>20</sup> Scatton (1993: 212) and Krapova (2001: 115) rank the šte-future among indicative tenses, too.

group in arguing that daCs may correlate not only with subjunctives, but also with infinitival structures in other languages. In what follows, I discuss and defend two theoretical concepts necessary to support this view.

#### 7.1. Semantic default

There are two competing views with respect to the semantics of subjunctives: (a) They make a specific semantic or presuppositional contribution, or (b) they are a semantically vacuous default ("subjunctive-as-default analysis"). Under the first view, daCs may only be used if their subjunctive semantics is compatible with the context. According to the second view, daCs are used whenever the more specific indicative is blocked, as its use would cause a semantic or presuppositional failure.<sup>21</sup>

Smirnova (2012) argues for the first view. The author, analyzing daCs in general as subjunctives (cf. Smirnova 2010: 106), observes that their use commits the attitude holder (not necessarily the speaker) to a weaker epistemic position as opposed to indicative expressions. She claims that the subjunctive introduces the presupposition that the domain with respect to which the relevant proposition is evaluated is non-homogenous, i.e. true or false in some but not all possible worlds of the relevant modal base. On the other hand, she claims that the domain is homogenous with the indicative, so the proposition is either true in all worlds or false in all worlds. Thus, the attitude holder uses the indicative when they are (relatively more) committed to the truth/reality of the proposition in question.

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<sup>&</sup>lt;sup>21</sup> Mezhevich's (2008) and Zimmermann's (2015) analyses of the Russian subjunctive reveal the reverse situation, with the indicative a default, and the subjunctive having semantic/presupositional content.

For the present discussion, the crucial aspect of Smirnova's proposal is that she assigns presuppositional content to both mood values. As a consequence, da has an invariant meaning stored in its lexical entry, and this meaning has to be compatible with the whole of the observable distribution of da.

Siegel (2009) argues for the second view, suggesting that, "while indicative morphology is specified as being [+realis], subjunctive morphology is underspecified for semantic content, and appears as a default when other, more specified, 'moods' cannot appear." (Siegel 2009: 1878) This means that *daCs* do not add anything to sentence semantics, but represent the neutral mood value to be chosen whenever the indicative cannot be used due to its being too specific. "[T]reating subjunctive as a default in this way is appealing because subjunctive morphology appears in such a wide range of environments, environments for which it has proved to be very difficult to provide any unified analysis" (Siegel 2009: 1878).

When it comes to deciding on one of these positions, the crucial criterion is which of them allows us to account for the distribution and interpretation of daCs with the fewest assumptions. In this regard, the first view seems costlier than the second, as it assigns content to both mood values. Moreover, any meaning assigned to the subjunctive has to be sufficiently flexible to capture the complex distribution of daCs.

To show whether or not the presupposition Smirnova (2012) assigns to the subjunctive is capable of accomplishing this task is beyond the scope of this paper, not only as it would require too much space, but also since Smirnova makes rather specific assumptions about the lexical entries of the matrix predicates that figure prominently in her argumentation. However, there are some independent points that cast doubt on her theory.

- (i) The subjunctive-as-default analysis has been well tested on diverse Romance languages (see, e.g., Quer 1998; Portner 1997; Schlenker 2005; Portner and Rubinstein 2012), and Siegel convincingly extends it to Balkan languages, including Bulgarian.
- (ii) Smirnova (2012: 560) argues that subjunctive-as-default analyses need to assume two different lexical entries for predicates allowing both indicative and subjunctive complements. An example is Bulgarian *spomnjam si* 'remember'; cf. (19).
- (19) a. Spomnjam si [ Maria da pee ]. remember<sub>ISG</sub> REFL  $Maria_{NOM}$  DA  $sing_{3SG}$ 'I remember Maria singing.' b. Spomnjam si [ če Maria pee ]. remember<sub>ISG</sub> REFL that Maria $_{NOM}$  sing $_{3SG}$ 'I remember that Maria sings.' (Smirnova 2012: 549)

The subjunctive selecting variant, (19a), would have to be associated with a subjunctive feature in the lexicon. This criticism, however, emerges from Smirnova's own theory, since the problem arises on the assumption that the matrix verbs in question have exactly the semantics she suggests. Different assumptions are likely to render the problem insubstantial. Moreover, there might be no need for selectional mood features altogether, assuming that the compatibility of certain matrix predicates with indicative or subjunctive complements, respectively, depends on, or is evaluated against, semantics and the context rather than morphosyntax. Moreover, Siegel proves capable of accounting for mood alternations by suggesting that the subjunctive is semantically underspecified (cf. Siegel 2009: 1880).

- (iii) Since matrix predicates play a crucial role in Smirnova's theory, nontrivial additional assumptions—such as elided/covert matrix predicates—become necessary to account for independently used daCs (see Section 8.3).
- (iv) Smirnova (2012: 560) notes that subjunctives in Bulgarian are not non-committal. That does not, however, prove her proposal to be more adequate than the subjunctive-as-default analysis. Treating the subjunctive as underspecified by no means excludes epistemic commitment in the relevant cases. However, unlike the indicative, the subjunctive does not explicitly point to such a commitment. A possible explanation why it is nonetheless used in relevant examples us that the commitment is already expressed by other linguistic means or inferable from the context. Another possibility is that the presence of epistemic commitment is not so relevant to the speaker as to be explicitly marked, which might in turn result in "a particular interpretative difference when compared to [the] indicative" (Siegel 2009: 1880). In other words, if speakers choose the subjunctive in spite of the fact that they suppose epistemic commitment to be involved, they aim at a specific interpretative effect.

These considerations lead me to adopt Siegel's analysis. Accordingly, daCs are a semantic default. The prediction is that they are used whenever the indicative would cause a semantic failure due to its meaning, i.e. the supposition of subject certainty.

## 7.2. Subject certainty

"[I]n Balkan, indicative is correlated with a higher degree of certainty on the part of the subject than is subjunctive" (Siegel 2009: 1878). Concerning the interpretation of the subjunctive, Siegel speaks of decreased certainty. Crucially, this interpretation does not

follow from any invariant meaning associated with the subjunctive, but from its semantic vacuity. In fact, the subjunctive is less specific than the indicative.

Adopting the subjunctive-as-default analysis, we are in a position to add the semantic contributions of the Bulgarian mood values as in Table 4.

**Table 4.** Verbal mood in Bulgarian (version II)

INDICATIVE		[_T]	Ø/šte	SUBJECT CERTAINTY
NON-INDICATIVE	SUBJUNCTIVE	ן ניין [	da	_
	INFINITIVAL	[-T]		

The table combines Krapova's distinction of two types of daCs with the present claims about mood in Bulgarian, integrating the subjunctive-as-default analysis and extending it to what I call the infinitival function of da. It says that daCs may be finite or non-finite, with the former corresponding to subjunctives, and the latter to infinitivals in languages that morphologically mark the finite/non-finite distinction. This account avoids the assumption of two lexical entries for da (subjunctive vs. infinitival). Instead, there is only one da marking the absence of the indicative. Under these assumptions, the broad range of environments in which daCs occur can be explained by (i) their semantic vacuity and (ii) their flexibility as concerns finiteness.

#### 8. The syntactic distribution of da-constructions

In this section, I discuss different environments of Bulgarian daCs, with a twofold goal: First, to illustrate the broad distribution of daCs, and second, to demonstrate that the conjunction of Krapova's and Siegel's proposals is indeed fruitful in accounting for it.

In general, daCs occur as (argumental) complement, (adverbial) adjunct, and as independently used (main) clauses; cf. Table 5.

**Table 5.** Distribution of finite and non-finite da-constructions

	complement clause	adjunct clause	main clause
finite	+	+	+
non-finite	+	+	_

### 8.1. Da-complements

DaCs may be finite or non-finite. It follows that, as complements, daCs may be infinitival or subjunctive, both of which are, however, CPs (see Section 2). The crucial difference lies in T being specified with [+T] or [-T], respectively. Da-complements are determined by the argument structure of a given predicate and function as subjects or objects. But infinitival da-complements may also play another role: the basic predicate of their clause. If so, the selecting verb is (or at least assumes the characteristics of) an auxiliary. Using examples, I discuss these subcases in the following subsections.

#### 8.1.1. The matrix verb iskam 'want'

If a *da*-complement is finite, the NOM on its subject is licensed by T being [+T]. This specification also gives rise to a dependent temporal interpretation of the proposition expressed, namely that of a "possible/unrealized future" (cf. Krapova 1998: 81; 2001: 117).<sup>22</sup> In addition, finite *da*-complements exhibit, as a rule, subject non-identity.

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<sup>&</sup>lt;sup>22</sup> Smirnova (2008: 102–04) argues against Krapova's claim of a correlation between [±T] and the type of temporal reading. She shows that [-T]-daCs do not generally have a simultaneous interpretation, using

(20) Iskam [CP Maria da pee ].  $want_{ISG} Maria_{NOM} DA sing_{3SG}$  'I want Maria to sing.' (Smirnova 2012: 547)

Iskam 'want' is a predicate that is, as far as clausal complements are concerned, restricted to daCs, the reason being its meaning. Since it is a volitional verb, iskam goes well with hypothetical object clauses, but can by no means be sensibly combined with a proposition, about the reality of which the matrix subject—the speaker in (20)—is supposed to be certain. According to Siegel (2009), subject certainty is marked by the indicative, being the usual mood of če-complement clauses. As expected, the latter are ruled out under iskam; cf. (21).

(21)\*Iskam [CP če Maria (šte) pee ]. want
$$_{ISG}$$
 that Maria $_{NOM}$  FUT sing $_{3SG}$  (Smirnova 2012: 547)

While (20) is a case of subject non-identity, (22) shows that *iskam* may also involve subject identity.

(22) Iskaš [ $_{CP}$  da peeš ]. want $_{2SG}$  DA sing $_{2SG}$  'You want to sing.'

examples with backward-shifting (*spomnjam si* 'remember') and forward-shifting (*opitvam se* 'try') verbs. Cowper (2016a, 2016b) offers a solution in claiming that non-finite *da*Cs can denote bare events, which may overlap, precede, or follow the matrix event. Which of these relations actually obtains depends on the semantics of the matrix predicate at hand (cf. Smirnova 2008: 103).

Assuming Krapova's distinction, the daC in (22) is non-finite. A comparison with languages that have infinitives, for example Russian, supports this view, as these show embedded infinitives in analogous examples like the one in (23).

(23) Ivan xočet peť. (Russian)  $John_{NOM}$  want $_{3SG}$  sing $_{INF}$  'John wants to sing.'

Hence, the non-finite daC in (22) is an infinitive substitute. Due to [-T], its subject can only be PRO (control) or a trace (raising). Irrespective of whether (14) is analyzed in terms of control or raising,  $^{23}$  it is restricted to subject identity. Much like infinitives, non-finite daCs are the most economic way to achieve subject identity. Following Farkas (1992), I suggest that (22) is built with a non-finite daC due to blocking: Since, unlike their finite counterparts, non-finite daCs are restricted to subject identity, they are the more specific choice. In terms of derivational economy, one may say that, when there is no need for a referentially independent embedded subject, the derivation of a non-finite daC is preferred (or "blocks" the derivation of a finite daC) on economic grounds. The reason is that finite daCs require higher derivational effort in involving a temporal specification and NOM licensing.

To sum up, *iskam* has two selectional options: finite or non-finite *da*Cs. With the former, subject non-identity obtains due to NOM licensing in the embedding, and the

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<sup>&</sup>lt;sup>23</sup> Iatridou (1993) suggests the possibility of raising from na-subjunctives in Modern Greek (see also Alexiadou and Anagnostopoulou 1999). The resemblance of Bulgarian daCs to Modern Greek na-clauses allows the conclusion that Bulgarian may have raising from non-finite daCs, too.

daC forms a full proposition with a distinct time frame.<sup>24</sup> Thus, the whole sentence presents a "nesting" of two propositions in a relative temporal relationship. With non-finite daCs, we have subject identity, and the non-finite daC lacks its own time frame. As a consequence, the sentence amounts to one complex proposition, with iskam being reminiscent of a modal auxiliary rather than a full verb.<sup>25</sup>

### 8.1.2. The matrix verb moga 'can'

Other verbs are not as flexible as *iskam*. As an example, the modal moga 'can' is restricted to non-finite da-complements. Despite the fact that it embeds a full CP, moga is clearly an auxiliary in that it functions as an "operator on situations" (Wiemer 2014: 130), i.e. it merely modifies the event denoted in the daC; cf. (24).

(24) {az} moga {az} da rabotja {az} 
$$I_{NOM} \text{ can}_{ISG} \quad I_{NOM} \text{ DA work}_{ISG} \quad I_{NOM}$$
 'I can work' (cf. Lempp 1981: 62)

-

<sup>&</sup>lt;sup>24</sup> A reviewer objects that there does not seem to be any difference in time relation between (20) and (22). However, while (20) comprises two "nested" propositions with their own time frames (p: the singing of Maria at time t; p': my wanting of p at time t'; with t necessarily following t'), (22) is one proposition with a single time frame, since the non-finite daC is a bare event of type e, not a proposition of type t.

<sup>25</sup> Korytkowska (1977: 27–35) argues for a distinction of  $iskam_1$  ('intend') and  $iskam_2$  ('want'). Lempp (1981: 31) assumes that, with subject identity obtaining, iskam and its da-complement form a monoclausal "complex verbal predicate". He argues for a biclausal analysis for subject non-identity. Both distinctions seems to follow from the finiteness vs. non-finiteness analysis of the daCs in question.

Here, only one instance of a NOM subject (az) is possible, supporting the non-finite analysis of the daC (see also Werkmann 2007b). Additional support comes from the fact that the daC lacks a distinct time frame (cf. Krapova and Petkov 1999: 276–77). Finally, the daC correlates with an infinitive in, e.g., Russian; cf. (25).

(25) Ja mogu rabotať. (Russian)  $I_{NOM} \operatorname{can}_{ISG} \operatorname{work}_{INF}$  'I can work.'

#### 8.1.3. The matrix verb *znam* 'know'

A common interpretation of *znam* 'know' is to express that somebody has knowledge about something ("veridical *znam*"). Since this implies certainty on the part of the subject/speaker, veridical *znam* selects indicative clauses; cf. (26).

(26) Znam [ če Maria pee ].  $know_{ISG} that Maria_{NOM} sing_{3SG}$  'I know that Maria sings.' (Smirnova 2012: 547)

Finite daCs are ruled out under veridical znam due to the fact that they are not associated with subject certainty; cf. (27).

verbs, but notes that some show ambiguities in their behavior as raising rather than control predicates.

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<sup>&</sup>lt;sup>26</sup> Again, it is not easy to decide on a raising or control analysis. Krapova (1998: 74) dubs *moga* 'can', *za-počvam* 'begin', *znam* 'know how', *zabravjam* 'forget', *opitvam se* 'try', and *uspjavam* 'succeed' control

(27) \*Znam [ Maria da pee ]. 
$$know_{ISG} \quad Maria_{NOM} \quad DA \quad sing_{3SG} \qquad \qquad (Smirnova 2012: 547)$$

However, when combined with a non-finite *da*C (subject identity, no distinct time frame), *znam* gets interpreted as 'know how' ("modal *znam*"; Krapova 1998: 74). Much like *moga*, modal *znam* is merely an operator on the embedded situation; cf. (28).

(28) Znam [ da peja ].  $know_{ISG}$  DA  $sing_{ISG}$  'I know how to sing.'

Under the desirable assumption that there is only one lexical entry for *znam*, its veridical and modal interpretations, respectively, depend on the type of its complement. As shown, the veridical interpretation of *znam* arises on the basis of subject certainty associated with the indicative. On the other hand, its modal interpretation arises with non-finite *da*Cs only. Why are finite *da*Cs ruled out with *znam* altogether? On the one hand, finite *da*Cs come with subject non-identity, but modal *znam* requires subject identity. On the other hand, finite *da*Cs express hypothetical situations, but veridical *znam* requires certainty. Furthermore, modal *znam* embeds bare events, and these can only be expressed by non-finite *da*Cs (see Section 4.3). The "formulae" in (29) are meant as a summary. Importantly, the present assumptions avoid two lexical entries for *znam*.

## 8.1.4. The matrix verb spomnjam 'remember'

Spomnjam 'remember' presents another instance of mood alternation; cf. (30).

(30) a. Spomnjam si [ Maria da pee ]. remember<sub>ISG</sub> REFL Maria<sub>NOM</sub> DA sing<sub>3SG</sub> 'I remember Maria singing.' b. Spomnjam si Maria pee ]. remember<sub>ISG</sub> REFL that  $Maria_{NOM}$   $sing_{3SG}$ 'I remember that Maria sings.' (Smirnova 2012: 549)

According to Smirnova, "[i]n [(30b)], the attitude holder has a vivid memory of the event denoted by the embedded clause. The indicative is the only choice in such a context. In [(30a)], on the other hand, the attitude holder's recollection of the event is amorphous. She is not entirely sure whether the person who sang at her birthday party was Maria. The subjunctive is the only choice in this context." (Smirnova 2012: 453) Clearly, Siegel's (2009) subjunctive-as-default analysis captures this case, too, without assuming a presupposition associated with da or the daC.

### 8.1.5. The matrix verb *mislja* 'think'

The minimal pair in (31) contains the verb *mislja* 'think'. In this case, the opposition concerns sentence polarity.

- (31) a. Mislja [ {če} Paulina {\*da} e izjala tortata ]. think $_{ISG}$  that Paulina $_{NOM}$  DA be $_{3SG}$  eat $_{PART.SG.F}$  cake $_{DEF}$  'I think that Paulina ate the cake.'
  - b. Ne mislja [ {če} Paulina {da} e izjala tortata ].

    NEG think $_{ISG}$  that Paulina $_{NOM}$  DA be $_{3SG}$  eat $_{PART,SG,F}$  cake $_{DEF}$ 'I don't think that Paulina ate the cake.' (Siegel 2009: 1871)

A daC is ruled out in the positive case (31a), but becomes available under sentential negation; cf. (31b). Since sentence polarity is the factor determining the availability of (finite) daCs, examples like these are referred to as polarity subjunctives. Siegel "argue[s] that indicative is associated with a greater degree of subject certainty. When applied to the negation cases, this means that indicative is associated with the meaning that the subject believes in the negation of the embedded clause. That is, indicative gets what has been called the Neg-Raising/strengthening reading" (Siegel 2009: 1874). Siegel thus offers a satisfying explanation of polarity-related mood alternations.

In (31a), it is impossible to use a *da*C. Example (32), however, shows that non-negated *mislja* 'think' does actually tolerate *da*-complements.

(32) Mislja [ da svărša taja rabota ošte dnes ]. think $_{ISG}$  DA finish $_{ISG}$  this job yet today 'I intend to finish this job by today.' (Lempp 1981: 54)

But unlike (31a), (32) is an instance of subject identity. My claim is that the daC in (32) is non-finite. As such, it denotes a bare event (not a proposition), giving rise to mislja being interpreted as 'intend' rather than 'think'. This is another example where

the combination of a matrix predicate with a non-finite daC turns the former into an auxiliary of sorts, viz. an operator on the daC-event.

### 8.2. Da-adjuncts

As in the case of da-complements, I argue that adverbial da-adjunct clauses come in two varieties. Initial illustrating examples are given in (33).<sup>27</sup>

(33) a. Toj e decata [ bez vzel tja da  $he_{NOM}$   $be_{3SG}$   $take_{PART.SG.M}$  children<sub>DEF</sub> without she<sub>NOM</sub> DA uznae 1.28 (finite) notice<sub>3SG</sub> 'He has taken the children without her noticing [it].' b. vleze [ bez da počuka]. (non-finite) he<sub>NOM</sub> enter<sub>AOR.3SG</sub> without DA knock<sub>3SG</sub> 'He entered without knocking.' (Scatton 1984: 379)

Given this fact, the reviewer asks whether the daC in (33b) may not also be finite. I do not deny that this is a feasible option, but my alternative is that the daC in (33b) is non-finite exactly as there is no need for "costly" finiteness. On the other hand, the daC in (i) has to be finite to yield subject non-identity, as the latter requires a [+T] specification for NOM licensing.

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<sup>&</sup>lt;sup>27</sup> A reviewer points out that (33b) may also involve distinct subjects as in (i), for example in a stage play scenario where *she* was supposed to knock at the same time as *he* entered.

<sup>(</sup>i) Toj vleze [ bez tja da počuka ].  $he_{NOM}$  enter $_{AOR.3SG}$  without  $she_{NOM}$  DA  $knock_{3PL}$  'He entered without her knocking.'

<sup>&</sup>lt;sup>28</sup> Source: http://www.courtdevnya.org/2014/00634514/06270914.htm (2017/07/17).

While subject non-identity obtains in (33a), we find subject identity in (33b). I argue that the choice of a non-finite daC in the latter case is economy-driven: A finite daC in (33b) would require a pro subject and hence NOM licensing. Note also that pro is ambiguous (free or bound) in its reference. Using a non-finite daC does not require NOM licensing and thus means less derivational effort. In addition, it requires less interpretational effort, as PRO has to under control. It seems that Farkas' (1992) derivational economy is only one side of the coin, the other side being interpretational economy.

The examples in (33) contain the "complex subjunction" *bez da* 'without'. In general, *da*-adjuncts tend to involve additional introducing elements. These can be particles, complementizers, prepositions, or adverbs (cf. Tilkov et al. 1983: 464–66). A non-exhaustive list is compiled in Table 6.

<b>Table 6:</b> <i>Da</i> -ad	junct clauses (	(non-exhaustive samp	le)
,			

Tuble of But defined clauses (non-children's sumple)		
da '(in order) to, so that, if'	purpose/result/conditional	
za da 'in order to'	purpose	
{če/dano/samo/štoto/ta} da roughly: 'in order to'	purpose + additional nuances	
{ako/daže/dori/makar} i da 'although'	concessive	
stiga da 'if'	conditional	
{kato/sjakaš} da 'even though'	confrontative	
{bez/osven/vmesto} da 'without, instead of, except'	exclusive	
<i>predi da</i> 'before'	temporal	

These additional elements specify the sematic relation between adverbial and matrix clause. For example, *če da* and *ta da* introduce purpose clauses with an

additional 'result' nuance (cf. Tilkov et al. 1983: 385; see further examples in Rudin 1985: 60–61; 75–76); cf. (34) and (35).

- (34) Čakam da ni ulovi zaek, [  $\check{\mathbf{ce}}$  i nie  $\mathbf{da}$  jadem ]. wait $_{ISG}$  DA us $_{DAT}$  catch $_{3SG}$  rabbit that also we $_{NOM}$  DA eat $_{IPL}$  'I am waiting [for him] to catch us a rabbit, so we, too, can eat.' (Tilkov et al. 1983: 385)
- (35) Daj mi pari, [ ta da moga da go kupja ]. give<sub>IMP.SG</sub> me<sub>DAT</sub> money so DA can<sub>ISG</sub> DA it<sub>ACC</sub> buy<sub>ISG</sub> 'Give me money, so I can buy it.' (Büttner 2014: 1512)

Incidentally, examples like (34) provide crucial evidence for the view that daCs are full CPs, as  $\check{c}e$  occupies C. This in turn speaks in favor of not locating da in the same position, but rather in a lower head. Locating da in M accounts for data like (34) without additional assumptions.<sup>29</sup>

Example (36) features da-adverbials introduced by the preposition predi 'before'.

(36) a. Toj e umrjal, [ **predi da** săm bil roden ].  $he_{NOM} be_{3SG} die_{PART.SG.M} before DA be_{ISG} be_{PART.SG.M} born_{PART.SG.M}$  'He died before I was born.'

which makes it more plausible to locate it in M, being part of the I(nfl) rather than the C domain.

<sup>&</sup>lt;sup>29</sup> With Rizzi (1997), da might also be analyzed as occupying some head within a split CP, so that  $\check{c}e$  and da would both be complementizers, although different ones. In this vein, Krapova and Petkov (1999) locate  $\check{c}e$  in Force and da in Fin. My claim is, however, that da is associated with mood, not finiteness,

b. [Predi da otide v universiteta], Neli obiknoveno razxožda
 before DA go<sub>3SG</sub> in university<sub>DEF</sub> Neli<sub>NOM</sub> usually walk<sub>3SG</sub>
 kučeto si.
 dog<sub>DEF</sub> POSS<sub>3PS</sub> (Büttner 2014: 1506)
 'Before going to the university, Neli usually walks her dog.'

Prepositional clauses like (33) and (36) suggest a syntactic analysis in terms of prepositional phrases (PPs), the heads of which function as relators; cf. (37).<sup>30</sup>

## (37) [PP P [CP C [MP da ... ]]]

Following insights of, a.o., Emonds (1985, 1987), Steube (1987), Růžička (1990), Zimmermann (1999), Junghanns (1994), McFadden (2004), it should be considered a possibility that adverbial clauses are generally PP adjuncts, the P head of which can either be overt or zero.<sup>31</sup>

A particular challenge in this context is posed by the preposition *za* 'for', the reason being that it can never be separated from *da* by syntactic mpaterial (cf. Tilkov et al. 1984: 386); cf. (38).

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<sup>&</sup>lt;sup>30</sup> Given that daCs are CPs, a CP layer should always be present, irrespective of whether or not C is overt.

<sup>&</sup>lt;sup>31</sup> A prediction following from this hypothesis is that a zero P corresponds to an underspecified relation. This in turn predicts that adverbial *da*-clauses with a zero P are ambiguous. This is borne out as "bare" *da*-adverbials may be (interpreted as) purpose, result, or conditional clauses (cf. Tilkov et al. 1983: 385, 464–66); see Table 6.

(38) Utre šte trăgnem mnogo rano, [ $\mathbf{za}$  (\*ti)  $\mathbf{da}$  ne zakăsneeš]. tomorrow FUT leave $_{IPL}$  very early for you $_{2SG}$  DA NEG be late $_{2SG}$  'Tomorrow we will leave very early, so that you will not be be late.'

(Büttner 2014: 446)

In this respect, za da is in sharp contrast to  $\check{ce}$  da in (34). Apparently, za and da do not constitute, or end up in, distinct syntactic heads, while  $\check{ce}$  and da do. A possible analysis involves head movement of da from M via C to P, where it adjoins to za and forms an inseparable complex with it; cf. (39).

(39) 
$$[PP za+da_i [CP t'_i [MP t_i ...]]]$$

However, as other prepositions can well be separated from da, za da would be the only inseparable complex of this kind, and it would be the only instance for the movement in (39) to apply, which casts doubt on this analysis. As Tilkov et al. (1984: 384) point out, emphasized constituents raise to a position in front of the complex za da, whereas they land in front of da in case of  $\check{ce}$  da, da ne bi da, da no da,  $\check{s}$  toto da, and ta da; cf. (40a) and (40b), respectively.

(40) a. 
$$[\mathbf{XP_i} za \underline{da} \dots t_i \dots]$$
  
b.  $[\{\check{c}e/da \ ne \ bi/dano/\check{s}toto/ta\} \mathbf{XP_i} \underline{da} \dots t_i \dots]$ 

This suggests that *za da* occupies the same syntactic position as *da* alone; cf. (41). A straightforward explanation for this situation is that *za da* is stored as a unit of category M in the mental lexicon.

## (41) $[PP P [CP C [MP \{za da\} ...]]]$

A possible criticism of (41) concerns the assumption of two zero heads, P and C. An alternative is sketched in (42). Here, *za da* is stored in the lexicon as a unit of the "fused" category P/C/M. As such, it combines characteristics of a relator (P), a subordinator (C), and a mood marker (M).

## (42) $[P/C/MP \{za \ da\} \dots]$

Whatever analysis one may prefer for za da, it is noteworthy that the presence of more (overt) material corresponds to a more articulated (and unambiguous) adverbial relation as compared to da alone. As Tilkov et al. (1983: 384) note, za da is the clearer marker for purpose clauses as compared to da alone. This may be seen as evidence for assuming a semantically underspecified zero P in the latter case, in turn justifying the PP analysis for the whole range of relational (as opposed to attributive; cf. (43)) adverbial clauses. Alternatively, the relation between matrix and embedded clause has to be explained as arising from an implication based on the context or world knowledge.

Da-adverbials may also be attributive. An example is the daC in (43), functioning as an adnominal modifier. Presumably, attributive da-adjuncts are mere CPs (not PPs), as they do not stand in a particular (two-place) relation to their matrix, but are one-place predicates modifying entities of the same logical type. In (43), the daC is a modifier of the NP kafe 'coffee', over which it predicates the property of being sweet.

(43) Običam kafe [ da e šekerlija ].

love<sub>ISG</sub> coffee DA be<sub>3SG</sub> sweet

'I like [my] coffee to be sweet.'

(Büttner 2014: 312)

This example particularly well illustrates the non-propositionality and tenselessness of the daC involved. Analyzing it, with Krapova (2001), as non-finite can directly explain its tenselessness, while its non-propositionality follows from the potential of non-finite daCs to denote bare events (cf. Cowper 2016a, 2016b).

### 8.3. Matrix verbs of perception

Bulgarian sentences with matrix verbs of perception take an intermediate position with respect to the status of the daC, which is why I discuss them separately. An initial minimal pair is given in (44).

```
(44) a. Vidjax [ Ivo da puši ].
see<sub>AOR.1SG</sub> John DA smoke<sub>3SG</sub>
'I saw John smoke/smoking.'
b. Vidjax, [ če Ivo puši ].
see<sub>AOR.1SG</sub> that John smoke<sub>3SG</sub>
'I saw that John smokes.' (Werkmann 2007a: 1)
```

### 8.3.1 In/direct perception reports

Regarding the interpretation of these examples, Werkmann notes that (44a) can only be a direct perception report, i.e., the perceiving event coincides in time and space with the

perceived situation. By contrast, (44b) is not restricted to this coincidence, i.e., an indirect scenario is possible in which the perceiver merely infers that John smokes from some evidence available.

Since a direct perception report implies that the perceiver is certain about what they perceive(d), subject certainty does not seem to contribute to the interpretational difference in pairs like (44). This is confirmed by Tilkov et al. (1983: 334), stating that da matches with both če 'that' and kak 'how' in expressing "indicative modality" exclusively when appearing after verbs of sensual perception.

### 8.3.2 Un/certainty

There are, however, examples where a *da*C under a verb of perception is clearly associated with an "uncertainty interpretation". As a rule, such examples involve negation of the matrix verb (Tilkov et al. 1983: 336); cf. the pair in (45).

```
(45) a.
            Ne
                  săm
                         čul
                                        [ da ima
                                                          vojna ].
            NEG be_{ISG} hear_{PART.SG.M}
                                           DA have3SG war
            'I didn't hear there is a war.'
                                                                     (Tilkov et al. 1983: 336)
      b.
            Ne
                   săm čul,
                                        [ če
                                                ima
                                                          vojna ].
            NEG be<sub>ISG</sub> hear<sub>PART.SG.M</sub> that have<sub>3SG</sub> war
            'I didn't hear that there is a war.'
```

In (45a), the matrix subject (speaker) has neither heard about a war, nor are they certain that there really is one going on. By contrast, (45b) is felicitous when the subject did not hear about a war, but has, at the time of utterance, gained sufficient knowledge to be certain that there really is (or was) one going on.

To conclude thus far, an "uncertainty interpretation" requires activation by negation in sentences with verbs of perception. Without it, a *daC* gives rise to a (naturally "certain") direct perception report as in (36a). On the other hand, *če*-clauses allow an indirect interpretation.

#### 8.3.3 Complements vs. adjuncts

The previous examples suggest that the embeddings involved occupy the complement position of the matrix verb of perception. However, examples with clitic ACC pronouns in the matrix clause cast doubt on whether this is always the case; cf. (46) and (47).

- (46) Vidjax (go) [ (toj) da vliza v restoranta ].  $see_{AOR.ISG}$   $him_{ACC}$   $he_{NOM}$  DA enter<sub>3SG</sub> in restaurant<sub>DEF</sub>

  'I saw him enter the restaurant.' (Rudin 1985: 70)
- (47) Vidjax (go), [ če (toj) bărzeše kăm garata ].

  see<sub>AOR.ISG</sub> him<sub>ACC</sub> that he<sub>NOM</sub> hurry<sub>IPF.3SG</sub> toward station<sub>DEF</sub>

  'I saw him hurrying toward the station/I saw that he was hurrying toward the station.'

  (Rudin 1985: 70)

Two important facts are apparent: (i) Clitic ACC pronouns (coreferent with the embedded subject) may precede the embedded clause. (ii) Contrastive readings require an overt NOM subject in the embedded clause. Additionally, they may contain a coreferent ACC pronoun in the matrix.<sup>32</sup> Considering these facts, an analysis of the *da*C

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<sup>&</sup>lt;sup>32</sup> An overt NOM in the embedded clause is usually sufficient to achieve a contrastive reading. Strengthening it with an additional ACC clitic in the matrix is but a frequent phenomenon.

in (46) and of the če-clause in (47) as complements of the matrix verb would compel the assumption of two direct object positions in the matrix structure.<sup>33</sup>

As a solution, I suggest that daCs as well as  $\check{c}e$ -clauses under verbs of perception may be (a) complements of the verb of perception or (b) adjuncts to the ACC object of the verb of perception. In the latter case, they modify the object, which is reminiscent of the 'coffee'-example from (43) above, reproduced as (48).

```
(48) Običam kafe [ da e šekerlija ].

love<sub>ISG</sub> coffee DA be<sub>3SG</sub> sweet

'I love [my] coffee to be sweet.' (Büttner 2014: 312)
```

Three analyses to avoid this problem come into mind. The first one is **exceptional case marking** (ECM) which, however, fails to explain the facts, since an ACC clitic pronoun may co-occur with a coreferential NOM. Under ECM, both expressions should be in the ACC. Moreover, ACC case assignment from the matrix is blocked as *če*-clauses and *da*Cs are full CPs. The second apparent solution is **clitic doubling**: One might want to locate the object clitic in an AgrP (or the like) so as to leave the "real" object position for the embedded clause. But then, the ACC clitic should be coreferential with the whole embedded clause, not only with its subject. Examples with the feminine ACC *ja* 'her' prove that the latter is the case; cf. (i).

(i) Vidjax jai, [ če proi/tjai plače ](\*i).  $see_{AOR.\,ISG}$  her $_{ACC}$  that  $she_{NOM}$  cry $_{SG}$  'I saw her crying/I saw that she was crying.'

Moreover, it is possible to have a full (non-clitic) ACC pronoun in the matrix (obligatorily doubled by a clitic); cf. (ii). Since full pronouns are indisputably generated in the complement of VP (cf. Werkmann 2003: 242), the embedded clause cannot also occupy the same position.

(ii) Neja; ja; vidjax [ da plače ]. her<sub>ACC</sub> her<sub>CL.ACC</sub> see<sub>AOR.1SG</sub> DA cry3<sub>SG</sub> 'I saw her crying.'

Finally, **clitic climbing** may seem to solve the problem. But as Rivero (2005: 1086) concludes, Bulgarian lacks clitic climbing completely.

In (48), *kafe* 'coffee', the direct object of *običam* 'love', is modified by an attributive *daC*. By standard assumptions, the latter is an adjunct to the object. Arguably, the examples from (44a) and (46) can be analyzed the same way; cf. (49) and (50), respectively.

- (49) Vidjax [ Ivo<sub>i</sub> [ PRO<sub>i</sub> da puši ]].  $see_{AOR.ISG} John_{ACC} DA smoke_{3SG}$ 'I saw John smoke/smoking.'
- (50) Vidjax [go<sub>i</sub> [ PRO<sub>i</sub> / toj<sub>i</sub> da vliza v restoranta ]].  $see_{AOR.1SG}$   $him_{ACC}$   $he_{NOM}$  DA  $enter_{3SG}$  in  $restaurant_{DEF}$  'I saw him/HIM enter the restaurant.'

If the daCs in these sentences are adjuncts, Ivo is the only ACC object of the matrix verb in (49), much as go 'him' is in (50). Furthermore, the daC in (49) is non-finite, given that non-finite daCs are preferred under subject identity unless there is additional motivation to use a finite daC. One such motivation is a contrastive focus on the perceived agent ('I saw him and nobody else'). In (50), the latter is achieved by the overt NOM subject toj 'he' in the daC. Since NOM licensing requires a finite T, the daC variant with overt toj in (50) has to be finite (whereas the one with PRO is non-finite).

We still need to consider instances of "soft contrasting" where an overt NOM subject in the daC occurs without a coreferent ACC clitic in the matrix; cf. (51).

(51) Vidjax [ toj da puši ].  $see_{AOR.1SG}$   $he_{NOM}$  DA  $smoke_{3SG}$  'I saw HIM smoke/smoking.'

Surely, one would not want to posit a covert  $pro_{ACC}$  in the matrix clause if this can be avoided. The alternative is to say that, in cases like (51), the daC occupies the complement position of the matrix verb, which is the standard analysis for "bare"  $\check{c}e$ -clauses, too; cf. (52).

(52) Vidjax, [ če pro/toj puši ].  $see_{AOR.1SG}$  that  $he_{NOM}$  smoke3sG 'I saw that he/HE smokes.'

To sum up, daCs under verbs of perceptions differ syntactically. The possible structures are listed in (53).

- (53) a. Vidjax  $[go_i / Ivo_i [PRO_i da puši]]$ . (neutral)  $see_{AOR.1SG} him_{ACC} John_{ACC}$  DA  $smoke_{3SG}$  'I saw him/John smoke/smoking.'
  - b. Vidjax [ toj da puši ]. (contrast)  $see_{AOR.1SG} he_{NOM} DA smoke_{3SG}$ 'I saw HIM smoke/smoking.'
  - c. Vidjax [  $go_i$  [  $toj_i$  /  $Ivo_i$  da puši ]]. (strong contrast)  $see_{AOR.1SG}$   $him_{ACC}$   $he_{NOM}John_{NOM}$  DA  $smoke_{3SG}$  'I saw HIM/JOHN smoke/smoking.'

It may come as a surprise that adjunct structures as in (53a) yield the neutral variant. Note, however, that only these structures involve non-finite daCs being the (more) economic choice as compared to their finite counterparts.

The contrast reading for examples like (53b) arises only with subject pronouns, not with subject DPs. Arguably, this is why doublets as in (54) are attested. Note that, unlike the proper name Ivo, the noun vlak 'train' has definite forms which allow one to distinguish its subject (subject article -at) from its object (non-subject article -at) use.

(54) a. Vidjax [ PRO<sub>i</sub> da (non-finite *da*-adjunct) [ vlakă; idva ]]. see<sub>AOR</sub>, 1SG train<sub>DEF,ACC</sub> DA go 3SG [ vlakăt da idva ]. (finite *da*-complement) b. Vidjax see<sub>AOR.1SG</sub> train<sub>DEF.NOM</sub> DA go<sub>3SG</sub> 'I saw the train approach(ing).'

According to native speakers' judgments, the variants in (54a) and (54b) have the same meaning, and there is also no contrast associated with (54b). Nonetheless, (54a) is favored by most speakers, the reason being (according to my claims) that non-finite daCs are preferred to finite ones unless subject non-identity, a contrast, or a distinct time frame is needed. Since none of these effects can possibly apply to (54b), this variant should be out. That it is nevertheless attested can be attributed to the fact that speakers do not always want to focus on an individual object perceived, but may also want to express that they perceive(d) a complete situation. To achieve this, the sentence in (54b) is appropriate, as only this structure ensures the required interpretation. Simple English paraphrases of both options are given in (55).

(55) a. I saw the train: it approached. cf. (46a)

b. I saw: the train approached. cf. (46b)

## 8.3.4 Summary

I hope to have shown that Bulgarian sentences with matrix verbs of perception pose a challenge as they (i) may involve  $\check{c}e$ -/da-complements, i.e. "situation objects" of perception; (ii) may involve  $\check{c}e$ -/da-adjuncts, i.e. modifiers of "individual objects" of perception; (iii) do not generally follow the certainty vs. uncertainty pattern observed so far, but instead (iv) allow the distinction of direct and indirect perception reports.

With respect to (iii), I have shown that the prerequisite for an "uncertainty interpretation" is sentential negation. Concerning (iv), all examples with daCs are direct perception reports, irrespective of whether the daC is a complement or an adjunct. The only instances where the perception report is not necessarily a direct one is with  $\check{c}e$ -complement clauses. Considering this, it is fair to conclude that the direct perception interpretation of daCs is based on their temporal identity with, or relative dependency on, the matrix clause. In contrast, propositions expressed by  $\check{c}e$ -complement clauses are independent from the matrix, thus enabling indirect perception reports.

## 8.4. Independently used da-clauses

Apart from the syntactically dependent cases discussed so far, daCs may also be used as main clauses. These instances are always finite (main clauses are always tensed), propositional, and associated with illocutionary force (they form speech acts).

As predicted by the above assumptions on mood in Bulgarian, independently used daCs are necessarily "subjunctives". Considering that da-main clauses compete with indicative main clauses, we expect them to occur in cases of decreased or completely absent subject certainty.

Cf. the first example in (56), expressing an estimation on the part of the speaker, an interpretation that clearly rests on the absence of subject certainty.

(56) Tja da e imala togava naj-mnogo dvajset godini.

she<sub>NOM</sub> DA be<sub>3SG</sub> have<sub>PART.SG.F</sub> then at most twenty years

'[I guess that] She was at most twenty years old then.' (Büttner 2014: 506)

The examples in (57) and (58) are optatives.<sup>34</sup> Their interpretation can be explained as resulting from the absence of subject certainty, too, this time combined with assertive (possibly directive) illocutionary force in C.

- (57) Godinata da e bereketlija!

  year<sub>NOM.DEF</sub> DA be<sub>3SG</sub> fruitful

  'May the year be fruitful!' (Büttner 2014: 506)
- (58) Da vlezeme v knižarnicata!

  DA enter $_{IPL}$  in bookstore $_{DEF}$ 'Let's go into the bookstore!'

  (Hauge 1999: 216)

As "[t]here is cross-linguistic justification for the connection between subjunctive and imperatives, including cases where subjunctive morphology appears in certain

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<sup>&</sup>lt;sup>34</sup> Example (58) is probably more accurately characterized as jussive or hortative.

imperatives" (Siegel 2009: 1880), the fact that finite *da*-clauses may perform the communicative function of imperatives is not surprising. But while both categories share the property of being non-indicative, this common trait is based on different foundations: While the *da*-subjunctive is a mood encoded in M (with the indicative being its opposite), the imperative is a illocutionary force encoded in C. Since MP is in the scope of C, the imperative is able to block the indicative due to its semantic/pragmatic content, so there is no need for *da* to additionally mark the absence of the indicative.<sup>35</sup> This accounts for the fact that "true" imperative clauses in Bulgarian never involve *da*. In sum, "*da*-imperatives" like (57) and (58) are no imperatives proper, but merely perform an imperative-like function based on the absence of the indicative.

The example in (59) is also optative, this time counterfactual.

(59) Da beše potănal v moreto!

DA be $_{IPF.3SG}$  sink $_{PART.SG.M}$  in sea $_{DEF}$ 'If only he had sunk in(to) the sea!'

(Büttner 2014: 518)

Much like before, the optative is based on the lack of subject certainty combined with assertive (possibly directive) illocutionary force. The counterfactual interpretation arises on the basis of the past perfect *beše potănal* 'had sunk'. Similar to Mezhevich (2008) investigating Russian and Hebrew, I argue for Bulgarian that a past tense is used under *da* to describe hypothetical situations that can no longer arise at the time of utterance, i.e. counterfactuals (the same holds true for the imperfect auxiliary *štjax* used in the past future and past future perfect; see Section 6).

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<sup>&</sup>lt;sup>35</sup> Zimmermann (2009: 490) argues that imperative clauses lack the layers of M(od)P and TP altogether.

Let us now turn to the question in (60). Following Hauge (1999: 216), when using (60), the speaker expresses their fear of a positive answer.

```
(60) Da ne si bolen?

DA NEG be<sub>2SG</sub> sick<sub>SG,M</sub>

'You aren't sick, are you?'

(Hauge 1999: 216)
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An anonymous reviewer suggests that "fear examples" like this may actually be short versions of questions introduced by *da ne bi da* 'DA NEG COND DA'.<sup>36</sup> The reviewer adds that there are also positive *da*-examples akin to (60) that, however, lack the "fear interpretation" described by Hauge. The reviewer's example is (61).

(61) Da si mi viždal ključovete?

DA be $_{2SG}$  me $_{DAT}$  see $_{PART.SG.M}$  keys $_{DEF}$ 'Have you seen my keys?'

There is indeed no "fear interpretation" in (61). Note also that (61) may also be negated without a change in its propositional content; cf. (62).

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 $<sup>^{36}</sup>$  Bi is the 3SG of the conditional auxiliary, which suggests that we are faced with a daC embedded under a conditional. The reviewer points out that such a case is not predicted under an analysis that regards daCs as subjunctives in the Romance sense, the reason being that subjunctives are absolutely incompatible with conditionals in Romance languages. My proposal is that da ne bi is stored in the lexicon as a complex. Support comes from the facts (i) that bi is the only form of the conditional auxiliary available in it (cf. \*da ne bix(me) da), and (ii) that intervening syntactic material may occur between da ne bi and da only (Tilkov et al. 1984: 384). Thus, da ne bi (da) is arguably not conditional (anymore) and subjunctives are ruled out under conditionals in Bulgarian just as in Romance.

(62) Da ne si mi viždal ključovete?

DA NEG be $_{2SG}$  me $_{DAT}$  see $_{PART.SG.M}$  keys $_{DEF}$  'Haven't you seen my keys?'

Sentence (62) does not exhibit a "fear interpretation" although it is negated. These facts strongly suggest that the impression that (60) is a "fear example" is due to the adjective *bolen* 'sick' denoting an undesirable state.

Returning to the comparison between Siegel's (2009) and Smirnova's (2012) analyses, I would like to add that Smirnova cannot account for independently used daCs without additional assumptions. Since the lexical meaning of matrix predicates is of crucial importance in her analysis, she would need to assume covert matrix structures to deliver the presuppositional requirements needed to license the subjunctive. While covert matrix clauses are, of course, a theoretical option, the subjunctive-as-default analysis allows one to account for independently used daCs without it.

### 9. A sideglance at Serbian da

Serbian, a South Slavic language of the Western branch, is a near relative of Bulgarian. Unsurprisingly, the two languages show typological parallels. One such parallel is that Serbian has daCs with a similar range of syntactic and semantic functions as in Bulgarian: Serbian daCs may be complements and adjuncts, and they may also be infinitive substitutes (cf. Browne 1993: 356).<sup>37</sup> But Serbian da is not restricted to this. It

<sup>37</sup> Unlike Bulgarian, Serbian still has a productive infinitive. It is, however, used to a more limited extent than its Croatian counterpart (cf. Browne 1993: 330, 357). An example is given in (67).

can also be a "true" complementizer in C, introducing complement clauses under a broad range of matrix predicates, i.a. (veridical) *znati* 'know' or *čuti* 'hear'; cf. (63).

- (63) a. Znam [ da je Marija napisala knjigu ].  $know_{ISG}$  DA  $be_{3SG}$  Marija $_{NOM}$  write $_{PART.SG.F}$  book $_{ACC}$  'I know that Marija has written a book.'
  - b. Čuo sam [ da Marija piše knjigu ].
    know<sub>PART.SG.M</sub> be<sub>ISG</sub> DA Marija<sub>NOM</sub> write<sub>3SG</sub> book<sub>ACC</sub>
    'I heard that Marija is writing a book.' (Browne 1993: 356)

Bulgarian znam 'know' does not—at least in its veridical use—co-occur with daCs, but only with indicative  $\check{c}e$ -clauses. Hence, Serbian da may correspond to  $\check{c}e$  or da in Bulgarian, so Serbian da is ambiguous between a complementizer in C (selecting indicative MPs) and a non-indicative mood marker in M; cf. (64).

(64) a. 
$$[CP \, da \, [MP \, M_{[+ind]} \, ... \, ]]$$
 cf. Bulgarian  $\check{c}e$   
b.  $[CP \, C \, [MP \, da_{[-ind]} \, ... \, ]]$  cf. Bulgarian  $da$ 

This is in line with Progovac' (1993) distinction between indicative-selecting verbs (I-verbs) and subjunctive-selecting verbs (S-verbs) in Serbian. As evidence, she refers, i.a., to the availability of clitic climbing in the case of S-verbs as opposed to I-verbs. Progovac concludes that a domain extension takes place in case of the former, but not the latter. This means that the complements of S-verbs are transparent for clitic climbing, whereas the complements of I-verbs are not; cf. (65) and (66).

```
(I-verb)
(65) a.
             Milan
                         kaže [da ga
                                                  vidi
                                                          ].
             Milan_{NOM} say<sub>3SG</sub> DA him_{ACC} see<sub>3SG</sub>
             'Milan says that he can see him'
                                                                         (Progovac 1993: 119)
      b.
           *Milan ga kaže [ da vidi ____ ].
(66) a.
             Milan
                          želi
                                  [da ga
                                                  vidi
                                                                                        (S-verb)
             Milan_{NOM} want<sub>3SG</sub> DA him_{ACC} see<sub>3SG</sub>
      b.
           ?Milan ga želi [ da vidi ____ ].
             'Milan wants to see him.'
                                                                         (Progovac 1993: 119)
```

In terms of Wurmbrand (1998), this finding speaks in favor of the option of restructuring with S-verbs, but not I-verbs, in Serbian. Moreover, only Serbian *da*Cs being complements of S-verbs may alternate with morphological infinitives; cf. (67).

(67) Milan ga ne želi [ videti \_\_\_ ].

Milan<sub>NOM</sub> him<sub>ACC</sub> NEG want<sub>3SG</sub> see<sub>INF</sub>

'Milan doesn't want to see him.' (Progovac 1993: 124, fn. 4)

It is fair to conclude that *da* is a complementizer in C in (65), but a non-indicative mood marker in M in (66). The complement of *želi* seems thus to be an MP in (66), but a CP in (65). On the other hand, the embedded infinitive in (67) is likely to be an even smaller syntactic unit. As noted by Rivero (2005: 1086), restructuring is absent in Bulgarian. This, in turn, means that Bulgarian clausal/clause-like complements are always full CPs, which constitutes another fundamental difference to Serbian.<sup>38</sup>

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<sup>&</sup>lt;sup>38</sup> Todorović and Wurmbrand (2015a, 2015b) argue that Serbian *da* may occupy diverse syntactic positions, depending on the clausal domain (VP, IP, CP) for which it spells out the feature [+FINITE]. If

# 10. Summary

The goal of this paper was to revisit the system of mood in Bulgarian, focusing on daCs. To achieve this goal, two analyses of the semantics and syntax of the relevant structures have been combined. Siegel (2009) proposes that the indicative is associated with the supposition of subject certainty, whereas the subjunctive—marked by da—is a semantic default used when the indicative supposition is blocked, as it would lead to a semantic failure. Krapova (2001), on the other hand, claims that Bulgarian daCs come in two varieties: [+T] (finite) and [-T] (non-finite). The combination of both accounts gives rise to the following conclusions:

- (i) Da is base-generated in the functional head M(ood), located between C and T. As a mood particle, it marks the absence of the indicative. Thus, daCs represent the semantically vacuous default value of the Bulgarian mood category. This, in turn, offers a straightforward explanation for the fact that daCs occur in a relatively wide and non-uniform range of environments in Bulgarian.
- (ii) As non-indicative expressions, daCs not only function as subjunctives, but also compensate for the lack of a morphological infinitive in Bulgarian. Since Bulgarian is also a pro-drop language, finite and non-finite daCs are sometimes homonymous. A number of tests (possibility of overt NOM subjects, possibility of certain tense forms, possibility of different temporal adverbials) allow us to determine their status.

this is on the right track, the differences between Serbian and Bulgarian are even more substantial, with only one da in Bulgarian as opposed to (at least) three da's in Serbian.

(iii) Non-finite daCs are more economical than finite daCs both derivationally and interpretationally (no [+T], no NOM, coreference, identical time frame). This being so, non-finite daCs are generally preferred to finite daCs unless the latter have to be used to yield subject non-identity and/or tense non-identity. In terms of a blocking account, this means that non-finite daCs, being the more specific/restricted choice, block the use of finite daCs whenever possible.

As concerns the notions of finiteness and NOM licensing, there are a number of implications (at least with respect to Bulgarian). First, being finite turns out to be the same as being tensed. Second, NOM licensing depends on the presence of a tense specification. Third, the distinction between subjunctives and infinitivals is tightly associated with tense and finiteness, irrespective of whether the relevant forms are expressed synthetically or analytically in a given language. Fourth, non-finite daCs indicate that so-called present tense forms do not necessarily reflect an underlying referential present tense in Bulgarian. They may also be pleonastic (mark agreement only) allowing non-finite daCs to function as infinitive substitutes.

According to the present analysis, the Bulgarian indicative is associated with a specific invariant meaning, while its non-indicative counterpart is semantically vacuous. If this is on the right track, Bulgarian resembles French in this respect (cf. Schlenker 2005; Siegel 2009). On the other hand, the situation seems to be reverse in Russian. Here, the subjunctive is the contentful mood value, while the indicative is a default (cf. Mezhevich 2008; Zimmermann 2015). A large-scale investigation might reveal a typological split regarding markedness in the domain of mood, not necessarily running parallel to established genealogical or typological classifications.

One of many open questions concerns the issue of obligatory vs. partial control, which has not been tackled. A more general question is whether the present account can be utilized for, or extended to, the analysis of other languages with "special strategies" for expressing non-/finiteness, for example European Portuguese (inflected infinitives) or other languages of the Balkan sprachbund.

#### References

- Abusch, Dorit. (1985) *On verbs and time*. Doctoral dissertation, University of Massachusetts, Amherst.
- Abusch, Dorit. (1988) "Sequence of tense, intensionality, and scope". Hagit Borer, ed.

  \*Proceedings of the 7th West Coast Conference on Formal Linguistics, 1–14.

  Stanford: CSLI Publications.
- Alexiadou, Artemis and Elena Anagnostopoulou. (1999) "Raising without infinitives and the nature of agreement". Sonya Bird, Andrew Carnie, Jason Haugen, and Peter Norquest, eds. Proceedings of WCCFL 18, 14–26. Somerville: Cascadilla Press.
- Aronoff, Mark. (1976) Word formation in generative grammar. Cambridge, MA: MIT Press.
- Bernštejn, Samuil B. (1961) *Očerk sravniteľnoj grammatiki slavjanskich jazykov*.

  Moskva: Akademija nauk SSSR.
- Browne, Wayles. (1993). "Serbo-Croat". Bernard Comrie and Greville G. Corbett, eds. *The Slavonic languages*, 306–87. London and New York: Routledge.

- Büttner, Uwe. (2014) Bulgarisch: Lehrbuch für Anfänger und Fortgeschrittene. Leipzig: Universitätsbibliothek.
- Chomsky, Noam. (1995) The Minimalist Program. Cambridge, MA: MIT Press.
- Chomsky, Noam. (2001) "Derivation by phase". Michael Kenstowicz, ed. *Ken Hale: A life in language*, 1–52. Cambridge, MA: MIT Press.
- Chomsky, Noam. (2007) "Approaching UG from below". Hans-Martin Gärtner and Uli Sauerland, eds. *Interfaces* + *recursion* = *language? Chomsky's minimalism and the view from syntax-semantics*, 1–30. Berlin and New York: de Gruyter.
- Condoravdi, Cleo. (2001) "Temporal interpretation of modals: Modals for the present and for the past". David I. Beaver, Stefan Kaufmann, Brady Z. Clark, and Luis D. Casillas, eds. *Stanford papers on semantics*, 59–82. Stanford: CSLI Publications.
- Cowper, Elizabeth. (2002) "Finiteness". Unpublished ms., University of Toronto.
- Cowper, Elizabeth. (2016a) "Finiteness and pseudofiniteness". Kristin Melum Eide, ed. Finiteness matters: On finiteness-related phenomena in natural languages, 47–78. Amsterdam and Philadelphia: John Benjamins.
- Cowper, Elizabeth. (2016b) "The nature of finiteness". Paper presented at the Conference of the Canadian Linguistic Assocation, Calgary, 28–30 May 2016.
- Eide, Kristin Melum. (2016) "Introduction". Kristin Melum Eide, ed. *Finiteness matters: On finiteness-related phenomena in natural languages*, 1–44. Amsterdam and Philadelphia: John Benjamins.
- Emonds, Joseph. (1985) A unified theory of syntactic categories. Dordrecht: Foris.
- Emonds, Joseph. (1987) "The invisible category principle". *Linguistic inquiry* 18: 613–32.

- Genadieva-Mutafčieva, Zara. (1962) "Za edna ot dopălnitelnite funkcii na săjuzite da i če v săvremennija bălgarski ezik". Izvestija na Instituta za bălgarski ezik 8: 483–92.
- Genadieva-Mutafčieva, Zara. (1967) "Finalnite săjuzi v săvremennija bălgarski ezik". Bălgarski ezik 17: 101–14.
- Genadieva-Mutafčieva, Zara. (1970) *Podčinitelnijat săjuz* da *v săvremennija bălgarski ezik*. Sofia: Bălgarska Akademija na Naukite.
- Genadieva-Mutafčieva, Zora. (1976) "Slučai na nemodalna upotreba na modalna častica DA". *Bălgarski ezik* 1/2: 58–89.
- Genadieva-Mutafčieva, Zora. (1979) "Uslovnite săjuzi v săvremennija bălgarski ezik."

  Konstantin P. Popov, ed. Pomagalo po bălgarski sintaksis za studentite po
  bălgarska i slavjanska filologija, 286–298. Sofija: Nauka i izkustvo.
- Giannakidou, Anastasia. (2009) "The dependency of the subjunctive revisited: Temporal semantics and polarity". *Lingua* 119: 1883–908.
- Gołąb, Zbigniew (1954) "Funkcja syntaktyczna partykuły *da* w językach pd.-słowiańskich (bułgarskim, macedońskim i serbo-chorwackim)". *Biuletyn Polskiego Towarzystwa Językoznawczego* 13: 67–92.
- Gutschmidt, Karl. (2002) "Bulgarisch". Miloš Okuka, ed. *Lexikon der Sprachen des europäischen Ostens*, 219–234. Klagenfurt: Wieser.
- Hauge, Kjetil Ra. (1999) *A short grammar of contemporary Bulgarian*. Bloomington: Slavica Publishers.
- Higginbotham, James. (1983) "The logic of perceptual reports: An extensional alternative to situation semantics". *The journal of philosophy* 80(2): 100–27.

- Iatridou, Sabine. (1993) "On nominative case assignment and a few related things". *MIT working papers in linguistics* 19: 175–98.
- Junghanns, Uwe. (1994) Syntaktische und semantische Eigenschaften russischer finaler Infinitiveinbettungen. Doctoral dissertation, University of Leipzig.
- Kaufmann, Stefan. (2005) "Conditional truth and future reference". *Journal of semantics* 22: 231–80.
- Kayne, Richard S. (1994) *The antisymmetry of syntax*. Cambridge, MA: MIT Press.
- Korytkowska, Małgorzata. (1977) *Bułgarskie czasowniki modalne*. Wrocław: Zakład Narodowy im. Ossolińskich.
- Kramer, Christina E. (1992) "Analytic modality in Balkan Slavic". *Indiana Slavic* studies 6: 113–22.
- Krapova, Iliana. (1997) "On control in Bulgarian". Uwe Junghanns and Gerhild Zybatow, eds. *Formale Slavistik*, 93–107. Frankfurt am Main: Vervuert.
- Krapova, Iliana. (1998) "Subjunctive complements, null subjects and case checking in Bulgarian". *University of Venice working papers in linguistics* 8(2): 73–93.
- Krapova, Iliana. (1999) "The system of auxiliaries in Bulgarian". Mila Dimitrova-Vulchanova and Lars Hellan, eds. *Topics in South Slavic syntax and semantics*, 59–89. Amsterdam and Philadelphia: John Benjamins.
- Krapova, Iliana. (2001) "Subjunctives in Bulgarian and modern Greek". María Luisa Rivero and Angela Ralli, eds. *Comparative syntax of Balkan languages*, 105–26. Oxford: Oxford University Press.
- Krapova, Iliana and Vassil Petkov. (1999) "Subjunctive complements, null subjects and case checking in Bulgarian". Katarzyna Dziwirek, Herbert S. Coats, Cynthia M.

- Vakareliyska, eds. *Annual workshop on formal approaches to Slavic linguistics 7:*The Seattle meeting 1998, 267–85. Ann Arbor: Michigan Slavic Publications.
- Laskova, Laska. (2009) "Imperfekt i pluskvamperfekt v podčineni *da*-izrečenija sled glagoli za văzprijatie". *Bălgarski ezik* (supplement): 169–95.
- Lempp, Albrecht. (1981) Das zusammengesetzte Verbalprädikat mit 'da' im Neubulgarischen. München: Otto Sagner.
- Lenertová, Denisa (2004): "Czech pronominal clitics". *Journal of Slavic linguistics* 12: 139–76.
- Lindstedt, Jouko. (2010). "Mood in Bulgarian and Macedonian". Björn Rothstein and Rolf Thieroff, eds. *Mood in the languages of Europe*, 409–21. Amsterdam and Philadelphia: John Benjamins.
- Maslov, Jurij S. (1956) *Očerk bolgarskoj grammatiki*. Moskva: Izdateľstvo literatury na inostrannyx jazykax.
- Maslov, Jurij S. (1962) "K semantike bolgarskogo kon" junktiva". *Slavjanskoe jazyko*znanie 316, Serija filologičeskix nauk 64: 3–10.
- Maslov, Jurij S. (1981) Grammatika bolgarskogo jazyka: dlja studentov filologičeskix fakuľtetov universitetov. Moskva: Vysšaja škola.
- McFadden, Thomas. (2004) The position of morphological case in the derivation: A study on the syntax-morphology interface. Doctoral dissertation, University of Pennsylvania.
- Mezhevich, Ilana. (2008) "A time-relational approach to tense and mood". Natasha Abner and Jason Bishop, eds. West Coast Conference on Formal Linguistics (WCCFL) 27, 326–34. Somerville: Cascadilla Proceedings Project.

- Palmer, Frank Robert. (1986) *Mood and modality*. Cambridge: Cambridge University Press.
- Penčev, Jordan. (1998) Sintaksis na săvremennija bălgarski knižoven ezik. Plovdiv.
- Pesetsky, David and Esther Torrego. (2001) "T-to-C movement: Causes and consequences". Michael Kenstowicz, ed. *Ken Hale: A life in language*, 355–426. Cambridge, MA: MIT Press.
- Petkova Schick, Ivana. (1977) "Die bulgarischen 'da'-Konstruktionen als Träger spezifischer Modalitäten". *Linguistische Studien* A 43: 117–85.
- Picallo, M. Carme. (1985) *Opaque domains*. Doctoral dissertation, The City University of New York.
- Pitsch, Hagen. (2010) "Complex verbs between syntax and morphology in Bulgarian". Russian Linguistics 34(3): 307–29.
- Popov, Konstantin. (1968) "Za njakoi strukturni, semantični i stilistični osobenosti na prostite izrečenija v bălgarskija ezik". Jaroslav Bauer, ed. *Otázky slovanské syntaxe II: Sborník symposia 'Strukturní typy slovanské věty a jejich vývoj', Brno 20.–22.10.1966*, 201–09. Brno: UJEP.
- Portner, Paul. (1997) "The semantics of mood, complementation, and conversational force". *Natural language semantics* 5: 167–212.
- Portner, Paul and Aynat Rubinstein. (2012) "Mood and contextual commitment". Anca Chereces, ed. *Proceedings of SALT 22*, 461–87. Chicago: CLC Publications.
- Progovac, Ljiljana. (1993) "Locality and subjunctive-like complements in Serbo-Croatian". *Journal of Slavic linguistics* 1(1): 116–44.
- Quer, Josep. (1998) Mood at the interface. The Hague: Holland Academic Graphics.

- Richards, Marc. (2007) "On feature inheritance: An argument from the Phase Impenetrability Condition". *Linguistic inquiry* 38: 563–72.
- Rivero, María Luisa. (1994) "Clause structure and V-movement in the languages of the Balkans". *Natural language and linguistic theory* 12: 63–120.
- Rivero, María Luisa. (1999a) "Verb movement and economy: Last resort". Mila Dimitrova-Vulchanova and Lars Hellan, eds. *Topics in South Slavic syntax and semantics*, 1–23. Amsterdam and Philadelphia: John Benjamins.
- Rivero, María Luisa. (1999b) "Stylistic verb movement in yes-no questions in Bulgarian and Breton". István Kenesei, ed. *Crossing boundaries: Advances in the theory of Central and Eastern European languages*, 67–90. Amsterdam and Philadelphia: John Benjamins.
- Rivero, María Luisa. (2000) "Finiteness and second position in long verb movement languages: Breton and Slavic". Robert D. Borsley, ed. *The nature and function of syntactic categories*, 295–323. New York: Academic Press.
- Rivero, María Luisa. (2005) "Topics in Bulgarian morphology and syntax: A minimalist perspective". *Lingua* 115: 1083–128.
- Rivero, María Luisa (2009) "Intensionality, high applicatives, and aspect: Involuntary state constructions in Bulgarian and Slovenian". *Natural language and linguistic theory* 27: 151–96.
- Rizzi, Luigi. (1997) "The fine structure of the left periphery". Liliane Haegeman, ed. *Elements of grammar*, 281–337. Dordrecht: Kluwer.
- Rudin, Catherine. (1985) Aspects of Bulgarian syntax: Complementizers and WH constructions. Columbus: Slavica.

- Rudin, Catherine. (1988) "Finiteness and opacity: Evidence from the Balkans". Michael Hammond, Edith Moravcsik and John Wirth, eds. *Studies in syntactic typology*, 37–51. Amsterdam and Philadelphia: John Benjamins.
- Růžička, Rudolf. (1990) "Über Syntax und Semantik russischer Gerundien (Adverbialpartizipien, Deepričastija)". *Wiener slawistischer Almanach*: 361–78.
- Scatton, Ernest A. (1984) *A reference grammar of modern Bulgarian*. Columbus: Slavica Publishers.
- Scatton, Ernest A. (1993) "Bulgarian". Bernard Comrie and Greville G. Corbett, eds. *The Slavonic languages*, 188–248. London and New York: Routledge.
- Schlenker, Philippe. (2005) "The lazy Frenchman's approach to the subjunctive: Speculations on reference to worlds and semantic defaults in the analysis of mood". Twan Geerts, Ivo van Ginneken and Haike Jacobs, eds. *Romance languages and linguistic theory 2003: Selected papers from 'Going Romance' 2003, Nijmegen, 20–22 November*, 269–310. Amsterdam and Philadelphia: John Benjamins.
- Seliščev, Afanasij M. (1952) *Staroslavjanskij jazyk*. Tom 2: *Teksty, slovar', očerki morfologii*. Moskva: Gosudarstvennoe učebno-pedagogičeskoe izdateľstvo Ministerstva prosveščenija RSFSR.
- Siegel, Laura. (2009) "Mood selection in Romance and Balkan". *Lingua* 119(12): 1859–82.
- Smirnova, Anastasia. (2008) "Temporal interpretation of subjunctive complements in Bulgarian". Anastasia Smirnova and Matthew Curtis, eds. *Issues in Slavic Syntax and Semantics*, 78–115. Cambridge: Cambridge Scholars Publishing.

- Smirnova, Anastasia. (2010) "Cross-linguistic variation in the temporal domain: The meaning of the present tense in Albanian and Bulgarian". *Balkanistica* 23: 75–112.
- Smirnova, Anastasia. (2011) Evidentiality and mood: Grammatical expressions of epistemic modality in Bulgarian. Ph.D. dissertation, Ohio State University.
- Smirnova, Anastasia. (2012) "The semantics of mood in Bulgarian". *Proceedings from the Annual meeting of the Chicago Linguistic Society* 48(1): 547–61.
- Sonnenhauser, Barbara. (2006) "Aspekt und Aorist/Imperfekt im Bulgarischen—eine intervall-basierte Analyse". *Die Welt der Slaven* 51: 116–40.
- Sonnenhauser, Barbara. (2012) "Auxiliar-Variation und Textstruktur im Bulgarischen". Die Welt der Slaven 62: 351–79.
- Steube, Anita. (1987) "Grammatical relations between prepositions, conjunctions and the complementizer daß in a REST-grammar of German". *Linguistische Arbeitsberichte* 61: 54–74.
- Stowell, Timothy A. (1982) "The tense of infinitives". Linguistic inquiry 13(3): 561–70.
- Stowell, Timothy A. (1995) "The phrase structure of tense". Johan Rooryck and Laurie Zaring, eds. *Phrase structure and the lexicon*, 277–91. Dordrecht: Kluwer.
- Tilkov, Dimităr. et al., ed. (1983) *Gramatika na săvremennija bălgarski knižoven ezik.*Tom 3: *Sintaksis*. Sofija: Bălgarska Akademija na Naukite.
- Tilkov, Dimităr. et al., ed. (1994) *Gramatika na săvremennija bălgarski knižoven ezik.*Tom 3: *Sintaksis*. Sofija: Bălgarska Akademija na Naukite.
- Todorović, Neda and Susi Wurmbrand. (2015a) "(In)Finite possibilities of 'da': Restructuring the tense and aspect domains". Paper presented at the Workshop on Aspect and Embedded Clauses, Berlin, 11 May 2015.

- Todorović, Neda and Susi Wurmbrand. (2015b) "Finiteness across domains". Paper presented at Formal Description of Slavic Languages 11, Potsdam, 2–4 December 2015.
- Tomić, Olga Mišeska. (1996): "The Balkan Slavic clausal clitics". *Natural language* and linguistic theory 14: 811–72.
- Tomić, Olga Mišeska. (2006) *Balkan sprachbund morpho-syntactic features*. Dordrecht: Springer.
- Tomić, Olga Mišeska. (2008) "Mood and negation in Balkan Slavic". Gerhild Zybatow, Luka Szucsich, Uwe Junghanns and Roland Meyer, eds. Formal Description of Slavic Languages: The fifth conference, Leipzig 2003, 461–77. Frankfurt am Main: Peter Lang.
- Viktorova, Kalina. (2005) "Funkcionalen razvoj na da-konstrukcijata v săvremennija bălgarski ezik". Svetla Koeva, ed. Argumentna struktura: Problemi na prostoto i složnoto izrečenie, 185–224. Sofija: Sema RŠ.
- Weigand, Gustav. (1907) Bulgarische Grammatik. Leipzig: Barth.
- Werkmann, Valja. (2003) Objektklitika im Bulgarischen. Berlin: Akademie Verlag.
- Werkmann, Valja. (2007a) "Verbs of perception in Bulgarian". Abstract submitted to Formal Description of Slavic Languages 7, Leipzig.

  http://www.uni-leipzig.de/~jungslav/fdsl/fdsl7/abstracts/Werkmann FA.pdf
- Werkmann, Valja. (2007b) "Subjunctive complements of modal verbs in Bulgarian and Macedonian". Richard Compton, Magdalena Gloedzinowska, and Ulyana Savchenko, eds. *Annual Workshop on Formal Approaches to Slavic Linguistics 15.*The Toronto Meeting 2006, 457–76. Ann Arbor: Michigan Slavic Publications.

- Wiemer, Björn. (2014) "Mora da as a marker of modal meaning in Macedonian: On correlations between categorial restrictions and morphosyntactic behaviour". Elisabeth Leiss and Werner Abraham, eds. Modes of modality: Modality, typology, and universal grammar, 127–66. Amsterdam and Philadelphia: John Benjamins.
- Wurmbrand, Susanne. (1998) *Infinitives: Restructuring and clause structure*. Ph.D. dissertation, MIT.
- Zimmermann, Ilse. (1999) "Partizip II-Konstruktionen des Deutschen als Modifikatoren". ZAS Papers in Linguistics 14: 123–46.
- Zimmermann, Ilse. (2009) "Satzmodus". Sebastian Kempgen, Peter Kosta, Tilman Berger, and Karl Gutschmidt, eds. *Die slavischen Sprachen: Ein internationales Handbuch zu ihrer Struktur, ihrer Geschichte und ihrer Erforschung*, 484–505. Berlin and New York: de Gruyter.
- Zimmermann, Ilse. (2015) "The Russian subjunctive". Gerhild Zybatow, Petr Biskup, Marcel Guhl, Claudia Hurtig, Olav Mueller-Reichau and Maria Yastrebova, eds. Slavic Grammar from a formal perspective: The 10th anniversary FDSL conference, Leipzig 2013, 579–94. Frankfurt am Main: Peter Lang.