# Bulgarian moods*

**Hagen Pitsch**

*Abstract*: This paper concerns Bulgarian *da*-constructions (*da*Cs), phrasal structures that correspond to subjunctive or infinitival structures in other languages. In combining two theoretical contributions to the syntax and semantics of Bulgarian subjunctives, an attempt is made to reconsider the Bulgarian mood system, focussing on *da*Cs. The crucial claim is that *da*Cs 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] *da*Cs, 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 (*da*Cs). *Da*Cs correlate with subjunctive or infinitival structures in languages that explicitly mark the finite/nonfinite distinction (Krapova and Petkov 1999: 108; Tomić 2006: Chapter 6); cf. (1).

(1) a. Nadjavax se [ da dojdeš ]. (subjunctive-like)
hope$_{AOR.1SG}$ REFL DA come$_{2SG}$
'I hoped that you would come.' (Krapova and Petkov 1999: 275)

* I would like to express my gratitude to Catherine Rudin and to two anonymous *JSL* reviewers for extremely constructive comments, questions, and recommendations. I am grateful to Andreas Blümel, Eva Csipak, Uwe Junghanns, Frank Sode, Viola Schmitt, and Hedde Zeijlstra for inspiring suggestions. For help with the data, thanks are due to Krăstina Arbova-Georgieva. Finally, I would like to thank the audiences of the English and Slavic Linguistics Colloquia (Göttingen) and of FDSL 11 (Potsdam).

(1) b. Ivan se opita [ da razbere văprosa ].
Ivan REFL try$_{AOR.3SG}$ DA understand$_{3SG}$ question$_{DEF}$
(infinitive-like)

'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), which considers the syntax of Bulgarian *da*Cs. The second one is Siegel (2009), which revisits 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 *da*Cs, while *štjax* selects them.

The goal of this paper is thus not to present an utterly new analysis of the syntax and semantics of *da*Cs.[1] 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 nonfinite *da*Cs—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 category of mood. The combination of these assumptions provides an explanation of why Bulgarian *da*Cs correspond to subjunctive or infinitival structures in other languages.

The paper is structured as follows. Section 2 concerns the syntax of *da*Cs. 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 *da*Cs 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 regarding the semantics of *da*Cs. Section 8 deals with the syntactic distribution of *da*Cs and their possible interpretation

[1] 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), Gołąb (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).

as following from my claims. After a side glance 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 *da*Cs 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]

(2) Možeš li (*mi) (*gi) [ da (mi) (gi) pokažeš ]?
can$_{2SG}$ Q CL$_{1SG.DAT}$ CL$_{3PL.ACC}$ DA CL$_{1SG.DAT}$ CL$_{3PL.ACC}$ 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 *da*Cs are full CPs.[3] Note that this does not exclude raising from and control into *da*Cs. Cross-linguistically, these options seem to be facilitated by the nonindicative nature of the relevant embeddings; cf. (3) and (4).

(3) Tjai može [ $t_i$ da piše pismoto ]. (raising)
she$_{NOM}$ can$_{3SG}$ DA write$_{3SG}$ letter$_{DEF}$
'She can write the letter.'

(4) Petăr$_i$ iskaše [ PRO$_i$ da čete ]. (control)
Peter$_{NOM}$ want$_{IPF.3SG}$ DA read$_{3SG}$
'Peter wanted to read.' (Rivero 2005: 1085)

[2] Migdalski (2016: 212–3) attributes the absence of clitic climbing and other clitic-related phenomena to the presence of the functional head T. He argues that if T is present, clitics uniformly adjoin to it, at that point forming a cluster. By contrast, there is no such uniform adjunction site in languages that lack a TP (allegedly all Slavic languages except Bulgarian and Macedonian; cf. also Todorović 2016), which is why each clitic targets a separate specifier in the functional structure above VP. Incidentally, the latter gives rise to second-position cliticization, which is in turn absent in TPs-languages (like Bulgarian).

[3] 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 not a phasal head. Third, a subset of *da*Cs contain a complementizer located in C (e.g., *če* 'that').

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;[4] cf. (5).[5]

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

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).[6]

(6) $[_{CP}$ C $[_{MP}$ ***da*** $[_{TP}$ T $[_{VP}$ … V … ]]]] (cf. Krapova 2001: 106–07)

The latter view is based on word order and is more common in Bulgarian linguistics: while *da* is strictly adjacent to the inflected verb, "true" complementizers such as *če* '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, *če* (like *dali* 'whether', *deto* 'that', and *ta* 'that'; cf. Rudin 1985: 60) and *da* co-occur in result clauses, with *če* marking subordination, while *da* is a mood marker. Finally, *da* is in complementary distribution with *šte* 'will' (see Section 6) and *bix* 'would', which are modal clitics, too (cf. Rivero 1994: 65; Tomić 1996: 832).[7] Based on these facts, I argue that *da* is a modal particle located in M, as shown in (6). To indicate that M is also the base position of *šte* and that it may also be phonetically null, I add these options in (7).

(7) $[_{CP}$ C $[_{MP}$ {Ø/*šte*/***da***} $[_{TP}$ T $[_{VP}$ … V … ]]]]

[4] More precisely, they locate *da* in the head of FinP, assuming Rizzi's (1997) split CP framework. Still, the authors attribute the finiteness of *da*Cs to the properties of T, not to *da* in Fin.

[5] I simplify syntactic representations and omit projections of minor relevance, among others, AspP and *v*P.

[6] 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* is an auxiliary attached to VP but notes that it "clearly expresses modality" (Rudin 1985: 62).

[7] Other than *šte*, the forms of *šta* 'want' are nonclitic 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.

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) $[_{CP}\ C\ [_{MP}\ \{Ø/šte/da\}\textbf{+V}\ \ldots\ [_{VP}\ \ldots\ \boldsymbol{t_{V}}\ \ldots\ ]]]$

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) $[_{CP}\ C\ [_{MP}\ \textbf{subject}\ \{Ø/šte/da\}\text{+V}\ \ldots\ [_{VP}\ \boldsymbol{t_{subject}}\ t_{V}\ \ldots\ ]]]$

Note, however, that subject movement is merely the usual case, not obligatory.[8] The subject may also stay in situ in VP, resulting in its postverbal position as the verb obligatorily attaches to M; cf. (10).

(10) $[_{CP}\ C\ [_{MP}\ \{Ø/šte/da\}\text{+V}\ \ldots\ [_{VP}\ \textbf{subject}\ t_{V}\ \ldots\ ]]]$

## 3. Finiteness

Finiteness is a notoriously vague notion in linguistics (cf. Eide 2016: 1; Cowper 2016a). Among others, "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

[8] 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 *da*Cs 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 the exponent of so-called neutral focus.

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.

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): nonfinite 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.[9] 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][10] is a prerequisite for NOM licensing, with the result that the occurrence of a NOM subject is a diagnostic for finiteness.[11] 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).

[9] 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 aorist tense.

[10] 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).

[11] In a similar vein as 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 nonfinite depending on their case-assigning properties.

(11) a. Ivan$_i$ iskaše [ toj$_{i/j}$/*pro*$_{i/j}$ da ostane pri nego$_{j/i}$ ].
Ivan$_{NOM}$ want$_{IPF.3SG}$ he$_{NOM}$ DA stay$_{3SG}$ with him
'Ivan wanted (him) to stay with him.'

b. Ivan$_i$ uspja [ PRO/*brat mu$_i$ da ostane pri
Ivan$_{NOM}$ manage$_{AOR.3SG}$ brother$_{NOM}$ his DA stay$_{3SG}$ with
nego$_j$ ].
him
'Ivan managed to stay with him.' (Krapova and Petkov 1999: 268)

The *da*C in (11a) is finite while the one in (11b) is nonfinite. Krapova and Petkov (1999: 273–78) apply further tests: finite *da*Cs allow diverse tense forms, while nonfinite *da*Cs 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)
they say$_{AOR.3PL}$ DA be$_{3PL}$ be$_{PART.PL}$ at aunt
'They said they were with their aunt.'

b. Vidjax [ na ulicata da se **beše** **strupala**
saw$_{AOR.1SG}$ on street$_{DEF}$ DA REFL be$_{IPF.3SG}$ gather$_{PART.SG.F}$
goljama tălpa ].
large crowd
'I saw that on the street a large crowd had gathered.'

c. Čuvax ja [ da **plačeše** po celi nošti ].
hear$_{AOR.1SG}$ CL$_{3SG.F}$ DA cry$_{IMPF.3SG}$ at whole nights
'I heard her crying whole nights.' (Petkova Schick 1977: 175-6)

(13) * Ivan ne moža [ da napišeše / beše napisal
Ivan$_{NOM}$ NEG can$_{IPF.3SG}$ DA write$_{IPF.3SG}$ be$_{IPF.3SG}$ write$_{PART.SG.M}$
pismoto ].
letter$_{DEF}$
*intended:* 'Ivan could not have written the letter.'
(Krapova and Petkov 1999: 277)

Furthermore, finiteness implies 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 nonfinite (14b).

(14) a. **Včera** rešix [ **utre** da ne puša poveče ].
yesterday $decide_{AOR.1SG}$ tomorrow DA NEG $smoke_{1SG}$ anymore
'Yesterday I decided that tomorrow I would give up smoking.'
(Krapova and Petkov 1999: 276)

b. * **Včera** zabravix [ da zamina **utre** ].
yesterday $forget_{AOR.1SG}$ DA $leave_{1SG}$ 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

| | Agr(eement) | T(ense) | NOM |
|---|---|---|---|
| finite | [+Agr] | [+T] | ✓ |
| nonfinite | | [-T] | * |

## 4. Two Types of *da*-constructions

In a number of articles Iliana Krapova distinguishes two types of *da*Cs. After introducing her analysis, I will argue that there is a correlation between the type of *da*C 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 *da*Cs, dubbed TYPE I S[ubjunctive]s and TYPE II S[ubjunctive]s. This distinction is grounded on referential and syntactic differences of the null subjects involved; cf. Table 2.

**Table 2.** Null subjects in *da*Cs (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 *da*C 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 nonfinite *da*Cs. This means that modern Bulgarian exhibits nonfinite syntactic structures despite lacking a morphological infinitive.

## 4.2. Similarities and Differences

As concluded in Section 2, all *da*Cs are CPs, the heads of which are 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).

(15) Ivan ne smjata
Ivan$_{NOM}$ NEG consider$_{3SG}$
[ Petăr$_i$ da može (finite *da*C)
Peter$_{NOM}$ DA can$_{3SG}$
[ t$_i$ (*toj/**pro*) da zamine vednaga ]]. (nonfinite *da*C)
he DA leave$_{3SG}$ immediately
'Ivan does not consider Peter capable of leaving immediately.'

Another difference connected to the specification of T is the availability of certain tense forms. Mostly, the verb in *da*Cs 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).[12]

(16) * Ivan iska [ da pisa / šte piše /
Ivan$_{NOM}$ want$_{3SG}$ DA write$_{AOR.3SG}$ FUT write$_{3SG}$
šteše da piše pismoto ].
FUT$_{IPF.3SG}$ DA write$_{3SG}$ letter$_{DEF}$

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.[13] Krapova adds that the aorist is generally incompatible with a hypothetical interpretation. This in turn may be connected to another line of argument according to which the aorist marks a situation as finished in time

[12] 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'.

[13] Krapova's claim covers finite and nonfinite *da*Cs. But while the event denoted by nonfinite *da*Cs is aspectually nondistinct from the matrix event and lacks a distinct time frame, finite *da*Cs denote an independent event and have a distinct time frame. But still, their tense is anchored relative to the matrix. Indicative *če*-clauses, on the other hand, denote independent events and have completely independent tense, which is why they may contain the tenses excluded from finite *da*Cs; cf. (i).

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

(cf. Sonnenhauser 2006: 131; 2012: 359–60).[14] 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 nonfinite *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 nonfinite *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 cross-linguistic 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 nonfinite *da*Cs are present only morphologically, 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.

### 4.3. Subject Non/identity and Tense Non/identity

Building on the dichotomy of finite and nonfinite *da*Cs, I suggest a correlation with the properties of subject non/identity and/or tense non/identity. This is to say that finite *da*Cs 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, nonfinite *da*Cs—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 nonfinite *da*C shares its subject (*Petăr*) with the higher finite *da*C (subject identity), the subjects of the latter differs from that of the matrix (subject nonidentity).

Tense non/identity is illustrated in (14): the finite *da*C 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 nonidentity). By contrast, the nonfinite *da*C in (14b) lacks a distinct time frame (tense identity), as evidenced by the ungrammaticality of *utre* 'tomorrow'. Presumably, this is

[14] 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.

related to the fact that nonfinite *da*Cs may denote bare events (entities of logical type *e*; cf. Higginbotham 1983) that are usually expressed by means of bare infinitives in other languages.[15]

Regarding Romance languages, Farkas (1992) proposes that subject nonidentity 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 competition is active in Balkan languages. My claim, however, is that it exists in Bulgarian, where nonfinite *da*Cs function as infinitive substitutes.

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

## 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).[16]

[15] The bare-event analysis is put forward by Cowper (2016a, 2016b) for nonfinite Greek *na*-phrases.

[16] 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".

(17) Ivan se nadjava, [ če Petăr e zaminal
Ivan REFL hope$_{3SG}$ that Peter be$_{3SG}$ leave$_{PART.SG.M}$
veče ]. (indicative)
already
'Ivan hopes that Peter has already left.'
(Krapova and Petkov 1999: 282)

(18) Ivan se nadjava [ Petăr da e zaminal
Ivan REFL hope$_{3SG}$ Peter DA be$_{3SG}$ leave$_{PART.SG.M}$
veče ]. (subjunctive)
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 economical, as it requires fewer assumptions. The crucial question is, however, which variant can explain the data. 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: (simple) future, future perfect, past future, and past future perfect.[17] The future and the future perfect involve the particle *šte* 'FUT' (roughly 'will') while the past future and

[17] Past future and past future perfect (also called "future (perfect) in the past") are usually characterized as nonindicative 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

the past future perfect contain the auxiliary *štjax* 'would', which is the imperfect of *šta* 'want'.[18] Both *šte* and *štjax* are continuations of Old Bulgarian *xotěti* 'want', but while *štjax* has remained a verb (in V), *šte* has developed into a particle[19] (in M). Nonetheless, both have (inherited) an element of volitional modality. This matches analyses (Abusch 1985, 1988; Condoravdi 2001; Kaufmann 2005; see also Todorović and Wurmbrand 2015a: 6) that claim 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-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$_{1SG}$ DA be$_{1SG}$ read$_{PART.SG.M}$
'I would have read.'

b. Petăr iskaše $_{MP}$[ da [ čete ]].
Peter$_{NOM}$ want$_{IPF.3SG}$ DA read$_{3SG}$
'Peter wanted to read.'

I adopt the biclausal analysis but argue that the embedded *da*C is a nonfinite CP. Thus the two "tenses" in question resemble structures with modal auxiliaries in languages that have infinitives. The English equivalents in (ii-b) and (iii-b) illustrate this resemblance.

(ii) a. *pro* štjaxme [$_{CP}$ da$_{[-T]}$ razgledame ] (Bul)
would$_{1PL}$ DA look$_{1PL}$

b. we would [$_{VP}$ look$_{INF}$ ] (Eng)

(iii) a. *pro* štjaxme [$_{CP}$ da$_{[-T]}$ sme razgledali ] (Bul)
would$_{1PL}$ DA be$_{1PL}$ look$_{PART.PL}$

b. we would [$_{VP}$ have$_{INF}$ looked ] (Eng)

[18] 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.

[19] *Šte* is homonymous with the 3SG of *šta*, 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 *šte* as 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.

(i) *Šte* is in complementary distribution with *da*.[20] The explanation is that both are modal markers in M. But while *šte* is (future) indicative, *da* is nonindicative.

(ii) *Štjax* takes *da*Cs as complements. Arguably, this selection is licensed semantically, as the modal character of *štjax* can only embed hypothetical, unrealized (hence nonindicative), situations.

(iii) All relevant futures are only finite. The explanation is that they are based on a semantic PRESENT or PAST, so they are inherently tensed (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 interpretation 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.[21]

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.** Mood in Bulgarian (version I)

| | | | |
|---|---|---|---|
| INDICATIVE | | [+T] | *Ø/šte* |
| NONINDICATIVE | SUBJUNCTIVE | | *da* |
| | INFINITIVAL | [-T] | |

## 7. The Interpretation of *da*-constructions

There is a long-standing debate in the literature on whether or not *da*Cs really correlate with the SUBJUNCTIVE (IRREALIS). Authors arguing for the view that *da*Cs are an analytic subjunctive include Weigand (1907), Seliščev (1952),

[20] 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.

[21] Note that Scatton (1993: 212) and Krapova (2001: 115) rank the *šte*-future among indicative tenses, too.

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) *da*Cs are not necessarily subjunctives but may have a whole range of functions, most of them with a modal interpretation, among others, "pseudo-infinitive" (e.g., Popov 1968; Genadieva-Mutafieva 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 group in arguing that *da*Cs 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, *da*Cs may only be used if their subjunctive semantics is compatible with the context. According to the second view, *da*Cs are used whenever the more specific indicative is blocked, as its use would cause a semantic or presuppositional failure.[22]

Smirnova (2012) argues for the first view. Aanalyzing *da*Cs in general as subjunctives (cf. Smirnova 2010: 106), she 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 nonhomogenous (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.

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 entire 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

[22] 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/presuppositional content.

specified, 'moods' cannot appear." (Siegel 2009: 1878) This means that *da*Cs 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 *da*Cs 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 *da*Cs.

To show whether 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$_{1SG}$ REFL Maria$_{NOM}$ DA sing$_{3SG}$
'I remember Maria singing.'

b. Spomnjam si [ če Maria pee ].
remember$_{1SG}$ 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 emerges from Smirnova's own theory, since the problem arises from 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 *da*Cs (see Section 8.3).

(iv) Smirnova (2012: 560) notes that subjunctives in Bulgarian are not noncommittal. This 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 is 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 assume epistemic commitment, they aim at a specific interpretative effect.

These considerations lead me to adopt Siegel's analysis. Accordingly, *da*Cs 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.** Mood in Bulgarian (version II)

<table>
<tr><td colspan="2">INDICATIVE</td><td rowspan="2">[+T]</td><td>Ø/šte</td><td>SUBJECT CERTAINTY</td></tr>
<tr><td rowspan="2">NONINDICATIVE</td><td>SUBJUNCTIVE</td><td rowspan="2">da</td><td rowspan="2">—</td></tr>
<tr><td>INFINITIVAL</td><td>[-T]</td></tr>
</table>

The table combines Krapova's distinction of two types of *da*Cs with the present claims about mood in Bulgarian, which integrates the subjunctive-as-default analysis and extends it to what I call the infinitival function of *da*. It says that *da*Cs may be finite or nonfinite, with the former corresponding to subjunctives and the latter to infinitivals in languages that morphologically mark the finite/nonfinite 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 *da*Cs 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 *da*Cs, with a twofold goal: first, to illustrate the broad distribution of *da*Cs and second to demonstrate that the conjunction of Krapova's and Siegel's proposals is indeed able account for it.

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

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

| | **Complement clause** | **Adjunct clause** | **Main clause** |
|---|---|---|---|
| Finite | + | + | + |
| Nonfinite | + | + | – |

### 8.1. *Da*-complements

*Da*Cs may be finite or nonfinite. It follows that as complements *da*Cs 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).[23] In addition, finite *da*-complements as a rule exhibit subject nonidentity.

(20) Iskam [CP Maria da pee ].
want$_{1SG}$ 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 *da*Cs, 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$_{1SG}$ that Maria$_{NOM}$ FUT sing$_{3SG}$ (Smirnova 2012: 547)

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

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

Assuming Krapova's distinction, the *da*C in (22) is nonfinite. 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 pet'. (Russian)
John$_{NOM}$ want$_{3SG}$ sing$_{INF}$
'John wants to sing.'

[23] Smirnova (2008: 102–4) argues against Krapova's claim of a correlation between [±T] and the type of temporal reading. She shows that [-T]-*da*Cs do not generally have a simultaneous interpretation, using examples with backward-shifting (*spomnjam si* 'remember') and forward-shifting (*opitvam se* 'try') verbs. Cowper (2016a, 2016b) offers a solution in claiming that nonfinite *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).

Hence, the nonfinite *da*C in (22) is an infinitive substitute. With [-T], its subject can only be PRO (control) or a trace (raising). Irrespective of whether (14) is analyzed in terms of control or raising,[24] it is restricted to subject identity. Much like infinitives, nonfinite *da*Cs are the most economic way to achieve subject identity. Following Farkas (1992), I suggest that (22) is built with a nonfinite *da*C due to blocking: since, unlike their finite counterparts, nonfinite *da*Cs 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 nonfinite *da*C is preferred (or "blocks" the derivation of a finite *da*C) on economic grounds. The reason is that finite *da*Cs require higher derivational effort wich involves a temporal specification and NOM licensing.

To sum up, *iskam* has two selectional options: finite or nonfinite *da*Cs. With the former, subject nonidentity obtains due to NOM licensing in the embedding, and the *da*C forms a full proposition with a distinct time frame.[25] Thus the whole sentence presents a "nesting" of two propositions in a relative temporal relationship. With nonfinite *da*Cs, we have subject identity, and the nonfinite *da*C 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.[26]

### 8.1.2. The Matrix Verb *moga* 'can'

Other verbs are not as flexible as *iskam*. For example, the modal *moga* 'can' is restricted to nonfinite *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 *da*C); cf. (24).

[24] Iatridou (1993) suggests the possibility of raising from *na*-subjunctives in Modern Greek (see also Alexiadou and Anagnostopoulou 1999). The resemblance of Bulgarian *da*Cs to Modern Greek *na*-clauses suggests that Bulgarian may have raising from nonfinite *da*Cs, too.

[25] 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 *p* at time *t'*; with *t* necessarily following *t'*), (22) is one proposition with a single time frame, since the nonfinite *da*C is a bare event of type *e*, not a proposition of type *t*.

[26] Korytkowska (1977: 27–35) argues for a distinction between $iskam_1$ ('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 nonidentity. Both distinctions seem to follow from the finiteness vs. nonfiniteness analysis of the *da*Cs in question.

(24) {az} moga {az} da rabotja {az}
I$_{NOM}$ can$_{1SG}$ I$_{NOM}$ DA work$_{1SG}$ I$_{NOM}$
'I can work' (cf. Lempp 1981: 62)

Here, only one instance of a NOM subject (*az*) is possible, supporting the nonfinite analysis of the *da*C (see also Werkmann 2007b).[27] Additional support comes from the fact that the *da*C lacks a distinct time frame (cf. Krapova and Petkov 1999: 276–77). Finally, the *da*C correlates with an infinitive in, for example, Russian; cf. (25).

(25) Ja mogu rabotat'. (Russian)
I$_{NOM}$ can$_{1SG}$ 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$_{1SG}$ that Maria$_{NOM}$ sing$_{3SG}$
'I know that Maria sings.' (Smirnova 2012: 547)

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

(27) *Znam [ Maria da pee ].
know$_{1SG}$ Maria$_{NOM}$ DA sing$_{3SG}$ (Smirnova 2012: 547)

However, when combined with a nonfinite *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).

[27] Again, it is not easy to decide on a raising or control analysis. Krapova (1998: 74) dubs *moga* 'can', *započvam* 'begin', *znam* 'know how', *zabravjam* 'forget', *opitvam se* 'try', and *uspjavam* 'succeed' control verbs but notes that some show ambiguities in their behavior as raising rather than control predicates.

(28) Znam [ da peja ].
know$_{1SG}$ DA sing$_{1SG}$
'I know how to sing.'

Under the preferable assumption that there is only one lexical entry for *znam*, its veridical and modal interpretations 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 nonfinite *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 nonfinite *da*Cs (see Section 4.3). The "formulae" in (29) are meant as a summary. What is important is that the present assumptions avoid two lexical entries for *znam*.

(29) a. KNOW + proposition + subject certainty = veridical *znam* ('know')
b. KNOW + bare event = modal *znam* ('know how')

### 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$_{1SG}$ REFL Maria$_{NOM}$ DA sing$_{3SG}$
'I remember Maria singing.'

b. Spomnjam si [ če Maria pee ].
remember$_{1SG}$ 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 *da*C.

### 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$_{1SG}$ 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
NEG think$_{1SG}$ that Paulina$_{NOM}$ DA be$_{3SG}$ eat$_{PART.SG.F}$
tortata ].
cake$_{DEF}$
'I don't think that Paulina ate the cake.' (Siegel 2009: 1871)

A *da*C 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) *da*Cs, examples like these are referred to as polarity subjunctives. Siegel argue: "[I]ndicative 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 nonnegated *mislja* 'think' does actually tolerate *da*-complements.

(32) Mislja [ da svărša taja rabota ošte dnes ].
think$_{1SG}$ DA finish$_{1SG}$ 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 *da*C in (32) is nonfinite. As such, it denotes a bare event (not a proposition), resulting in *mislja* being interpreted as 'intend' rather than 'think'. This is another example where the combination of a matrix predicate with a nonfinite *da*C turns the former into an auxiliary of sorts, namely, an operator on the *da*C-event.

## 8.2. *Da*-adjuncts

As in the case of *da*-complements, I argue that adverbial *da*-adjunct clauses come in two varieties. Initial illustrative examples are given in (33).[28]

(33) a. Toj e vzel decata [ bez tja da uznae ].[29] (finite)
he$_{NOM}$ be$_{3SG}$ take$_{PART.SG.M}$ children$_{DEF}$ without she$_{NOM}$ DA notice$_{3SG}$
'He has taken the children without her noticing [it].'

b. Toj vleze [ bez da počuka ]. (nonfinite)
he$_{NOM}$ enter$_{AOR.3SG}$ without DA knock$_{3SG}$
'He entered without knocking.' (Scatton 1984: 379)

While subject nonidentity obtains in (33a), we find subject identity in (33b). I argue that the choice of a nonfinite *da*C in the latter case is economy-driven: a finite *da*C 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 nonfinite *da*C does not require NOM licensing and thus means less derivational effort. In addition, it requires less effort to interpret, as PRO can only be coreferential as it is controlled. 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 nonexhaustive list is compiled in Table 6.

[28] 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.

(i) Toj vleze [ bez tja da počuka ].
he$_{NOM}$ enter$_{AOR.3SG}$ without she$_{NOM}$ DA knock$_{3PL}$
'He entered without her knocking.'

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

[29] Source: http://www.courtdevnya.org/2014/00634514/06270914.htm (2017/07/17).

**Table 6:** *Da*-adjunct clauses (nonexhaustive sample)

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

These additional elements specify the sematic relation between adverbial and matrix clauses. 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, [ **če** i nie **da** jadem ].
wait$_{1SG}$ DA us$_{DAT}$ catch$_{3SG}$ rabbit that also we$_{NOM}$ DA eat$_{1PL}$
'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$_{IMP.SG}$ me$_{DAT}$ money so DA can$_{1SG}$ DA it$_{ACC}$ buy$_{1SG}$
'Give me money, so I can buy it.' (Büttner 2014: 1512)

Incidentally, examples like (34) provide crucial evidence for the view that *da*Cs are full CPs, as *če* 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.[30]

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

(36) a. Toj e umrjal, [ **predi da** săm bil
he$_{NOM}$ be$_{3SG}$ die$_{PART.SG.M}$ before DA be$_{1SG}$ be$_{PART.SG.M}$
roden ].
born$_{PART.SG.M}$
'He died before I was born.'

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

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).[31]

(37) [PP P [CP C [MP *da* … ]]]

Following insights of, among others, Emonds (1985, 1987), Steube (1987), Růžička (1990), Zimmermann (1999), Junghanns (1994), and 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.[32]

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 material (cf. Tilkov et al. 1984: 386); cf. (38).

[30] With Rizzi (1997), *da* might also be analyzed as occupying some head within a split CP so that *če* and *da* would both be complementizers, although different ones. In this vein, Krapova and Petkov (1999) locate *če* in Force and *da* in Fin. My claim is, however, that *da* is associated with mood, not finiteness, which makes it more plausible to locate it in M, being part of the I(nfl) rather than the C domain.

[31] Given that *da*Cs are CPs, a CP layer should always be present, irrespective of whether or not C is overt.

[32] 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, [ (ti) **za** (*ti)
tomorrow FUT leave$_{1PL}$ very early you$_{2SG}$ for you$_{2SG}$
**da** ne zakăsneeš ].
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 *če da* in (34). Apparently, *za* and *da* do not constitute, or end up in, distinct syntactic heads, while *če* 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 *če da*, *da ne bi da*, *dano da*, *štoto da*, and *ta da*; cf. (40a) and (40b), respectively.

(40) a. [ **XP**$_i$ *za da* … *t*$_i$ … ]
b. [ {*če/da ne bi/dano/štoto/ta*} **XP**i *da* … *t*i … ]

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). There, *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*} … ]

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 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 on the basis of the context or world knowledge.

*Da*-adverbials may also be attributive. An example is the *da*C 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 *da*C is a modifier of the NP *kafe* 'coffee', over which it predicates the property of being sweet.

(43) Običam kafe [ da e šekerlija ].
love$_{1SG}$ coffee DA be$_{3SG}$ sweet
'I like [my] coffee to be sweet.' (Büttner 2014: 312)

This example particularly well illustrates the nonpropositionality and tenselessness of the *da*C involved. Analyzing it, with Krapova (2001), as nonfinite can directly explain its tenselessness, while its nonpropositionality follows from the potential of nonfinite *da*Cs 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 *da*C, which is why I discuss them separately. A minimal pair is given in (44).

(44) a. Vidjax [ Ivo da puši ].
see$_{AOR.1SG}$ John DA smoke$_{3SG}$
'I saw John smoke/smoking.'

(44) b. Vidjax, [ če Ivo puši ].
see$_{AOR.1SG}$ that John smoke$_{3SG}$
'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 available evidence).

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), who state 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$_{1SG}$ hear$_{PART.SG.M}$ DA have$_{3SG}$ war
'I didn't hear there is a war.' (Tilkov et al. 1983: 336)

b. Ne săm čul, [ če ima vojna ].
NEG be$_{1SG}$ hear$_{PART.SG.M}$ that have$_{3SG}$ war
'I didn't hear that there is a war.'

In (45a), the matrix subject (speaker) has neither heard about a war nor is 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 *da*C 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$_{AOR.1SG}$ him$_{ACC}$ he$_{NOM}$ DA enter$_{3SG}$ in restaurant$_{DEF}$
'I saw him enter the restaurant.' (Rudin 1985: 70)

(47) Vidjax ( go), [ če (toj) bărzeše kăm garata ].
see$_{AOR.1SG}$ him$_{ACC}$ that he$_{NOM}$ hurry$_{IPF.3SG}$ toward station$_{DEF}$
'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, and (ii) contrastive readings require an overt NOM subject in the embedded clause. Additionally, they may contain a coreferent ACC pronoun in the matrix.[33] Considering these facts, an analysis of the *da*C 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.[34]

As a solution, I suggest that *da*Cs as well as *če*-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 in (43) above, reproduced as (48).

[33] An overt NOM in the embedded clause is usually sufficient for achieving a contrastive reading. Strengthening it with an additional ACC clitic in the matrix is also frequent.

[34] Three analyses avoiding this problem come to mind. The first one is **exceptional case marking** (ECM), which 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 possible 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 ja$_i$, [ če *pro*$_i$/tja$_i$ plače ]$_{(*i)}$.
see$_{AOR.1SG}$ her$_{ACC}$ that she$_{NOM}$ cry$_{3SG}$
'I saw her crying/I saw that she was crying.'

Moreover, it is possible to have a full (nonclitic) 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$_i$ ja$_i$ vidjax [ da plače ].
her$_{ACC}$ her$_{CL.ACC}$ see$_{AOR.1SG}$ DA cry$_{3SG}$
'I saw her crying.'

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

(48) Običam kafe [ da e šekerlija ].
love$_{1SG}$ coffee DA be$_{3SG}$ sweet
'I love [my] coffee to be sweet.' (Büttner 2014: 312)

In (48), *kafe* 'coffee', the direct object of *običam* 'love', is modified by an attributive *da*C. 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$_i$ [ PRO$_i$ da puši ]].
see$_{AOR.1SG}$ John$_{ACC}$ DA smoke$_{3SG}$
'I saw John smoke/smoking.'

(50) Vidjax [ go$_i$ [ PRO$_i$/toj$_i$ 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 *da*Cs 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 *da*C in (49) is nonfinite, given that nonfinite *da*Cs are preferred under subject identity unless there is additional motivation to use a finite *da*C. 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 *da*C. Since NOM licensing requires a finite T, the *da*C variant with overt *toj* in (50) has to be finite (whereas the one with PRO is nonfinite).

We still need to consider instances of "soft contrasting" where an overt NOM subject in the *da*C 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 *da*C occupies the complement position of the matrix verb, which is the standard analysis for "bare" *če*-clauses too; cf. (52).

(52) Vidjax, [ če *pro*/toj puši ].
see$_{AOR.1SG}$ that he$_{NOM}$ smoke$_{3SG}$
'I saw that he/HE smokes.'

To sum up, *da*Cs under verbs of perception vary 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 nonfinite *da*Cs, 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 *-ăt*) from its object (nonsubject article *-ă*) use.

(54) a. Vidjax [ vlakă$_i$ [ PRO$_i$ da idva ]]. (nonfinite *da*-adjunct)
see$_{AOR.1SG}$ train$_{DEF.ACC}$ DA go$_{3SG}$

b. Vidjax [ vlakăt da idva ]. (finite *da*-complement)
see$_{AOR.1SG}$ train$_{DEF.NOM}$ DA go$_{3SG}$
'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 (as I claim) that nonfinite *da*Cs are preferred to finite ones unless subject nonidentity, 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. (54a)
b. I saw: the train approached. cf. (54b)

### 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 *če-/da*-complements (i.e., "situation objects" of perception); (ii) may involve *če-/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 *da*Cs are direct perception reports, irrespective of whether the *da*C is a complement or an adjunct. The only instances where the perception report is not necessarily a direct one is with *če*-complement clauses. Considering this, it is fair to conclude that the direct perception interpretation of *da*Cs is based on their temporal identity with, or relative dependency on, the matrix clause. In contrast, propositions expressed by *če*-complement clauses are independent of the matrix, thus enabling indirect perception reports.

## 8.4. Independently Used *da*-clauses

Apart from the syntactically dependent cases discussed so far, *da*Cs may also be used as main clauses. In such cases they 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 *da*Cs 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.

Compare the first example in (56), which expresses 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
she$_{NOM}$ DA be$_{3SG}$ have$_{PART.SG.F}$ then at.most twenty
godini.
years
'[I guess that] She was at most twenty years old then.'
(Büttner 2014: 506)

The examples in (57) and (58) are optatives.[35] Their interpretation can also be explained as resulting from the absence of subject certainty, this time combined with assertive (possibly directive) illocutionary force in C.

(57) Godinata da e bereketlija!
year$_{NOM.DEF}$ DA be$_{3SG}$ fruitful
'May the year be fruitful!' (Büttner 2014: 506)

(58) Da vlezeme v knižarnicata!
DA enter$_{1PL}$ in bookstore$_{DEF}$
'Let's go into the bookstore!' (Hauge 1999: 216)

Sometimes, utterances like (57) and (58) are characterized as (analytic) imperatives. As "[t]here is cross-linguistic justification for the connection between subjunctive and imperatives, including cases where subjunctive morphology appears in certain 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 nonindicative, 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 an 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.[36] This accounts for the fact that "true" imperative clauses in Bulgarian never involve *da*. In sum, "*da*-imperatives" like (57) and (58) are not 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 situa-

[35] Example (58) is probably more accurately characterized as jussive or hortative.

[36] Zimmermann (2009: 490) argues that imperative clauses lack the layers of M(od)P and TP altogether.

tions 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).

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$_{2SG}$ sick$_{SG.M}$
'You aren't sick, are you?' (Hauge 1999: 216)

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'.[37] 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).

(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. The use of *da* in polar questions as in (60)–(62) must have a different motivation. Essentially, again, it seems to be related to the fact that *da* marks the absence

[37] *Bi* is the 3SG of the conditional auxiliary, which suggests that we are faced with a *da*C embedded under a conditional. The reviewer points out that such a case is not predicted under an analysis that regards *da*Cs 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.

of subject certainty, which is why embedded *da*-clauses often correspond to English *if*- or *whether*-clauses (i.e., embedded questions). I suggest that the independent use of such *da*-questions is a way (beside or alongside prosody and word order) to emphasize interrogative illocutionary force, all the more, as *da* appears always in initial position.

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 *da*Cs 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 *da*Cs without it.

## 9. A Side Look 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 *da*Cs with a similar range of syntactic and semantic functions as in Bulgarian: Serbian *da*Cs may be complements and adjuncts, and they may also be infinitive substitutes (cf. Browne 1993: 356).[38] But Serbian *da* is not restricted to this. It can also be a "true" complementizer in C, introducing complement clauses under a broad range of matrix predicates, among others, (veridical) *znati* 'know' or *čuti* 'hear'; cf. (63).

(63) a. Znam [ da je Marija napisala knjigu ].
know$_{1SG}$ 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$_{PART.SG.M}$ be$_{1SG}$ DA Marija$_{NOM}$ write$_{3SG}$ book$_{ACC}$
'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 *da*Cs but only with indicative *če*-clauses. Hence, Serbian *da* may correspond to *če* or *da* in Bulgarian, so Serbian *da* is ambiguous between a complementizer in C (selecting indicative MPs) and a nonindicative mood marker in M; cf. (64).

[38] 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).

(64) a. [$_{CP}$ ***da*** [$_{MP}$ M$_{[+ind]}$ … ]] cf. Bulgarian *če*
b. [$_{CP}$ C [$_{MP}$ ***da***$_{[-ind]}$ … ]] cf. Bulgarian *da*

This is in line with Progovac's (1993) distinction between indicative-selecting verbs (I-verbs) and subjunctive-selecting verbs (S-verbs) in Serbian. As evidence, she refers 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 the 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).

(65) a. Milan kaže [ da ga vidi ___ ]. (I-verb)
Milan$_{NOM}$ say$_{3SG}$ DA him$_{ACC}$ see$_{3SG}$
'Milan says that he can see him'
b. *Milan ga kaže [ da vidi ___ ]. (Progovac 1993: 119)

(66) a. Milan želi [ da ga vidi ___ ]. (S-verb)
Milan$_{NOM}$ want$_{3SG}$ DA him$_{ACC}$ see$_{3SG}$
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$_{NOM}$ him$_{ACC}$ NEG want$_{3SG}$ see$_{INF}$
'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.[39]

[39] 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 this is on the right track, the differences between

## 10. Summary

The goal of this paper was to revisit the system of mood in Bulgarian, focusing on *da*Cs. 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 *da*Cs come in two varieties: [+T] (finite) and [-T] (nonfinite). 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 *da*Cs represent the semantically vacuous default value of the Bulgarian mood category. This in turn offers a straightforward explanation for the fact that *da*Cs occur in a relatively wide and nonuniform range of environments in Bulgarian.

(ii) As nonindicative expressions, *da*Cs 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 nonfinite *da*Cs 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.

(iii) Nonfinite *da*Cs are more economical than finite *da*Cs both derivationally and interpretationally (no [+T], no NOM, coreference, identical time frame). This being so, nonfinite *da*Cs are generally preferred to finite *da*Cs unless the latter have to be used to yield subject nonidentity and/or tense nonidentity. In terms of a blocking account, this means that nonfinite *da*Cs, being the more specific/restricted choice, block the use of finite *da*Cs 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 closely associated with tense and finiteness, irrespective of whether the relevant forms are expressed synthetically or analytically in a

Serbian and Bulgarian are even more substantial, with only one *da* in Bulgarian as opposed to (at least) three *da*'s in Serbian.

given language. Fourth, nonfinite *da*Cs 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 nonfinite *da*Cs to function as infinitive substitutes.

According to the present analysis, the Bulgarian indicative is associated with a specific invariant meaning while its nonindicative 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 the 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*. Ph.D. dissertation, University of Massachusetts, Amherst.

————. (1988) "Sequence of tense, intensionality, and scope". Hagit Borer, ed. *Proceedings of the 7th West Coast Conference on Formal Linguistics*. Stanford, CA: CSLI Publications, 1–14.

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*. Somerville, MA: Cascadilla Press, 14–26.

Aronoff, Mark. (1976) *Word formation in generative grammar*. Cambridge, MA: MIT Press.

Bernštejn, Samuil B. (1961) *Očerk sravnitel'noj grammatiki slavjanskich jazykov*. Moskva: Akademija nauk SSSR.

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

Büttner, Uwe. (2014) *Bulgarisch: Lehrbuch für Anfänger und Fortgeschrittene*. Leipzig: Universitätsbibliothek.

Chomsky, Noam. (1995) *The minimalist program*. Cambridge, MA: MIT Press.

————. (2001) "Derivation by phase". Michael Kenstowicz, ed. *Ken Hale: A life in language*. Cambridge, MA: MIT Press, 1–52.

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*. Berlin: de Gruyter, 1–30.

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*. Stanford: CSLI Publications, 59–82.

Cowper, Elizabeth. (2002) "Finiteness". Unpublished ms., University of Toronto.

————. (2016a) "Finiteness and pseudofiniteness". Kristin Melum Eide, ed. *Finiteness matters: On finiteness-related phenomena in natural languages*. Amsterdam: John Benjamins, 47–78.

————. (2016b) "The nature of finiteness". Paper presented at the Conference of the Canadian Linguistic Assocation, Calgary, 28–30 May.

Eide, Kristin Melum. (2016) "Introduction". Kristin Melum Eide, ed. *Finiteness matters: On finiteness-related phenomena in natural languages*. Amsterdam: John Benjamins, 1–44.

Emonds, Joseph. (1985) *A unified theory of syntactic categories*. Dordrecht: Foris.

————. (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.

————. (1967) "Finalnite săjuzi v săvremennija bălgarski ezik". *Bălgarski ezik* 17: 101–14.

————. (1970) *Podčinitelnijat săjuz* da *v săvremennija bălgarski ezik*. Sofia: Bălgarska Akademija na Naukite.

————. (1976) "Slučai na nemodalna upotreba na modalna častica DA". *Bălgarski ezik* 1/2: 58–89.

————. (1979) "Uslovnite săjuzi v săvremennija bălgarski ezik". Konstantin P. Popov, ed. *Pomagalo po bălgarski sintaksis za studentite po bălgarska i slavjanska filologija*. Sofia: Nauka i izkustvo, 286–298.

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*. Klagenfurt: Wieser, 219–234.

Hauge, Kjetil Ra. (1999) *A short grammar of contemporary Bulgarian*. Bloomington: Slavica.

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". Colin Phillips, ed. *Papers on Case and Agreement II*. Cambridge, MA: MITWL, 175–98. [*MIT working papers in linguistics*, 19.]

Junghanns, Uwe. (1994) *Syntaktische und semantische Eigenschaften russischer finaler Infinitiveinbettungen*. Ph.D. 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*. Frankfurt am Main: Vervuert, 93–107.

————. (1998) "Subjunctive complements, null subjects and case checking in Bulgarian". *University of Venice working papers in linguistics* 8(2): 73–93.

————. (2001) "Subjunctives in Bulgarian and modern Greek". María Luisa Rivero and Angela Ralli, eds. *Comparative syntax of Balkan languages*. Oxford: Oxford University Press, 105–26.

Krapova, Iliana and Vassil Petkov. (1999) "Subjunctive complements, null subjects, and case checking in Bulgarian". Katarzyna Dziwirek, Herbert S. Coats, and Cynthia M. Vakareliyska, eds. *Annual workshop on formal approaches to Slavic linguistics 7: The Seattle meeting 1998*. Ann Arbor: Michigan Slavic Publications, 267–85.

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*. Amsterdam: John Benjamins, 409–21.

Maslov, Jurij S. (1956) *Očerk bolgarskoj grammatiki*. Moskva: Izdateľstvo literatury na inostrannyx jazykax.

————. (1962) "K semantike bolgarskogo kon"junktiva". *Slavjanskoe jazykoznanie* 316, *Serija filologičeskix nauk* 64: 3–10.

————. (1981) *Grammatika bolgarskogo jazyka: dlja studentov filologičeskix fakul'tetov universitetov*. Moskva: Vysšaja škola.

McFadden, Thomas. (2004) *The position of morphological case in the derivation: A study on the syntax-morphology interface*. Ph.D. 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*. Somerville: Cascadilla Proceedings Project, 326–34.

Migdalski, Krzysztof. (2016) *Second position effects in the syntax of Germanic and Slavic languages*. Wrocław: Wydawnictwo Uniwersytetu Wrocławskiego. [*Acta Universitatis Wratislaviensis*, 3747.]

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*. Cambridge, MA: MIT Press, 355–426.

Petkova Schick, Ivana. (1977) "Die bulgarischen 'da'-Konstruktionen als Träger spezifischer Modalitäten". *Linguistische Studien* A 43: 117–85.

Picallo, M. Carme. (1985) *Opaque domains*. Ph.D. 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*. Brno: UJEP, 201–09.

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*. Chicago: CLC Publications, 461–87.

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.

————. (1999a) "Verb movement and economy: Last resort". Mila Dimitrova-Vulchanova and Lars Hellan, eds. *Topics in South Slavic syntax and semantics*. Amsterdam: John Benjamins, 1–23.

————. (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*. Amsterdam: John Benjamins, 67–90.

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*. New York: Academic Press, 295–323.

————. (2005) "Topics in Bulgarian morphology and syntax: A minimalist perspective". *Lingua* 115: 1083–128.

————. (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*. Dordrecht: Kluwer, 281–337.

Rudin, Catherine. (1985) *Aspects of Bulgarian syntax: Complementizers and WH constructions*. Columbus: Slavica.

————. (1988) "Finiteness and opacity: Evidence from the Balkans". Michael Hammond, Edith Moravcsik, and John Wirth, eds. *Studies in syntactic typology*. Amsterdam: John Benjamins, 37–51.

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.

————. (1993) "Bulgarian". Bernard Comrie and Greville G. Corbett, eds. *The Slavonic languages*. London: Routledge, 188–248.

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*. Amsterdam: John Benjamins, 269–310.

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*. Cambridge: Cambridge Scholars Publishing, 78–115.

————. (2010) "Cross-linguistic variation in the temporal domain: The meaning of the present tense in Albanian and Bulgarian". *Balkanistica* 23: 75–112.

————. (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.

————. (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.

————. (1995) "The phrase structure of tense". Johan Rooryck and Laurie Zaring, eds. *Phrase structure and the lexicon*. Dordrecht: Kluwer, 277–91.

Tilkov, Dimităr. et al., ed. (1983) *Gramatika na sa̋vremennija bălgarski knižoven ezik*. Tom 3: *Sintaksis*. Sofia: Bălgarska Akademija na Naukite.

————. (1994) *Gramatika na sa̋vremennija bălgarski knižoven ezik*. Tom 3: *Sintaksis*. Sofia: Bălgarska Akademija na Naukite.

Todorović, Neda. (2016) *On the presence/absence of TP: Syntactic properties and temporal interpretation*. Ph.D. dissertation, University of Connecticut.

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.

————. (2015b) "Finiteness across domains". Paper presented at Formal Description of Slavic Languages 11, Potsdam, 2–4 December.

Tomić, Olga Mišeska. (1996): "The Balkan Slavic clausal clitics". *Natural language and linguistic theory* 14: 811–72.

————. (2006) *Balkan sprachbund morpho-syntactic features*. Dordrecht: Springer.

————. (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*. Frankfurt am Main: Peter Lang, 461–77.

Viktorova, Kalina. (2005) "Funkcionalen razvoj na *da*-konstrukcijata v săvremennija bălgarski ezik". Svetla Koeva, ed. *Argumentna struktura: Problemi na prostoto i složnoto izrečenie*. Sofia: Sema RŠ, 185–224.

Weigand, Gustav. (1907) *Bulgarische Grammatik*. Leipzig: Barth.

Werkmann, Valja. (2003) *Objektklitika im Bulgarischen*. Berlin: Akademie Verlag.

————. (2007a) "Verbs of perception in Bulgarian". Abstract submitted to Formal Description of Slavic Languages 7, Leipzig. Online version available at: http://www.uni-leipzig.de/~jungslav/fdsl/fdsl7/abstracts/Werkmann_FA.pdf

————. (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*. Ann Arbor: Michigan Slavic Publications, 457–76.

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*. Amsterdam: John Benjamins, 127–66.

Wurmbrand, Susanne. (1998) *Infinitives: Restructuring and clause structure*. Ph.D. dissertation, Massachusetts Institute of Technology.

Zimmermann, Ilse. (1999) "Partizip II-Konstruktionen des Deutschen als Modifikatoren". *ZAS Papers in Linguistics* 14: 123–46.

————. (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*. Berlin: de Gruyter, 484–505.

————. (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*. Frankfurt am Main: Peter Lang, 579–94.

Georg-August-Universität Göttingen
Seminar für Slavische Philologie
Slavic Department
Humboldtallee 19, Büro 3.116
37073 Göttingen | Germany
+49 (0) 551 39 4780
hpitsch@gwdg.de

Received: May 2016
Revised: July 2017