#### CATHERINE RUDIN

#### DA AND THE CATEGORY AUX IN BULGARIAN

The particle da in Bulgarian has traditionally been classified as some sort of conjunction, and in the few existing generative treatments of Bulgarian (e.g. Dolapchieva, 1976) it has generally been described as a complementizer. In this paper I will show that da is not a complementizer and that it can in fact be analyzed as belonging to the AUX, given the definition of AUX proposed by Akmajian, Steele, and Wasow (1979) (henceforth 'ASW'). The paper will include a brief sketch of some other elements of the AUX in Bulgarian and a discussion of the status of AUX as a constituent.

## 1. WHY DA IS NOT A COMPLEMENTIZER

At first glance, da does seem very much like a complementizer. It often seems to introduce embedded sentences in the same way as the complementizers če 'that' and dali 'whether', and the choice of da, če, or dali in the complement sentence is determined by the verb of the higher clause.<sup>1</sup>

- (1) a. Kazvat če pejat decata. say-3p that sing-3p children-the
  - They say the children are singing.
  - b. Pitajte dali pejat decata. ask-2p-imp whether sing-3p children-the

    Ask whether the children are singing.
  - c. Iskam da pejat decata. want-1s to sing-3p children-the

I want the children to sing.

However, upon further investigation it becomes obvious that da differs from če and dali in several ways. One of these is its position relative to the FOCUS position. In the examples in (1) there is no focused element in the embedded clause so this difference is not visible. When focused material is present, it

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always precedes da but normally follows če and dali ((2a-c) differ from (1a-c) only in emphasis). Example (2d) shows that the focused NP decata cannot follow da.

- (2) a. Kazvat če decata pejat.
  - b. Pitajte dali decata pejat.
  - c. Iskam decata da pejat.
  - d. \* Iskam da decata pejat.

The focused NP in (2c) is a nominative subject, as is demonstrated by the case-marked pronouns in (3); its position is not due to raising to object of the higher clause.

(3) a. Iskam te da pejat. want-1s they-nom to sing-3p.

I want them to sing.

b.\* Iskam gi da pejat. want-1s them-acc to sing-3p.

The difference in surface position does not in itself prove that če and dali are complementizers and da is not; da could, for example, originate in COMP and be moved into immediately preverbal position after Focusing had applied. This analysis is not satisfactory, however, for at least two reasons, both having to do with a restriction against a doubly filled COMP position in Bulgarian.

First, da can occur in the same simple sentence as either of the complementizers, če or dali, but they cannot cooccur with each other:

- (4) a. Dali da ja popitam? whether to her-acc ask-1s (I wonder) should I ask her?
  - b. Toj se dvoumi dali da se vurne obratno. he refl debated-3s whether to refl turn-3s back

    He debated whether to turn back.
  - c. Ženata sedna taka če da me vižda. woman-the sat-3s thus that to me see-3s

    The woman sat so that she could see me.

d. Tolkova blesteše če očite da te zaboljat. so shone-3s that eyes-the to you-acc begin-to-hurt-3p.

It shone so (brightly) that your eyes would begin to hurt.

but never:

This can be accounted for by a restriction against COMP containing more than one element, provided that da is not in COMP at any stage in the derivation. If da were generated in COMP and later moved out, all the sentences in (4) would have doubly filled COMP nodes in underlying structure; [COMP dali da] and [COMP če da], in which case the non-occurrence of [COMP če dali] or [COMP dali če] would be an unexplained and isolated exception.

Če and dali also do not cooccur with the clitic question particle li, which presumably originates in COMP and cliticizes onto the verb or other questioned word from there.<sup>2</sup> Da however does cooccur with li (compare (4ab) above):

- (5) a. Da ja popitam li? to her ask-1s Q

  Should I ask her?
  - dvoumi b. Toj se dali vŭrne ne se obratno. he refi debated-3s to neg refl Q turn-3s back He debated whether to turn back.

Secondly, a similar argument can be made on the basis of WH-words, which cooccur freely with da but not with če or dali:

- (6) a. Kakvo da pravim? what to do-1p

  What should we do?
  - b. Toj ne znae kogo da pita. he neg know-3s whom to ask He doesn't know who to ask.

c. Tursi kniga kojato da mu haresa. seek-3s book which to him-dat please-3s He is looking for a book that he'll like.

but never:

d. \* dali kakvo, \* kakvo dali, \* če kogo, \* kojato če, etc.

Again, this is easily accounted for if da is not in COMP at the point in the derivation when WH-Movement occurs.

I conclude that da is not in COMP position and is therefore not a complementizer.

### 2. WHY DA IS IN AUX

According to ASW, "AUX is a category — i.e. distinct in its syntactic behavior from the behavior of other syntactic categories — labelling a constituent that includes elements expressing the notional categories of Tense and/or Modality". This definition consists of two basic criteria for AUX-hood: one syntactic ("a constituent", "distinct in its syntactic behavior") and one semantic ("expressing . . . Tense and/or Modality"). The particle da fits both criteria, and certain verbal elements in Bulgarian also seem to fit the criteria to varying degrees; these will be discussed below.

Syntactically, da is unlike anything else in Bulgarian. The surface position of da is always immediately before the verb complex, which consists of the verb with its clitics (dative and accusative personal and reflexive pronouns, the clitic forms of the verb sum (to be), and the negative particle ne). These clitics always attach to the left of the verb unless this would make them utterance initial, in which case they attach to the right of the verb. Example (7a) illustrates the normal preverbal position and (7b) shows the postverbal positioning of clitics to avoid their being initial, as in the ungrammatical (7c).

- (7) a. Včera toj mi ja dade. yesterday he me-dat it-f gave-3s

  Yesterday he gave it to me.
  - b. Dade mi ja.
    gave-3s me-dat it-f

    (He) gave it to me.

c.\* Mi ja dade. me-dat it-f gave-3s.

When da and one or more clitics occur together, the order is da - clitic(s) - V; no other order is possible:

- (8) a. Iskam da mi ja dade. want-1s to me-dat it-f give-3s

  I want him to give it to me.
  - b.\* Iskam mi ja da dade. want-1s me-dat it-f to give-3s

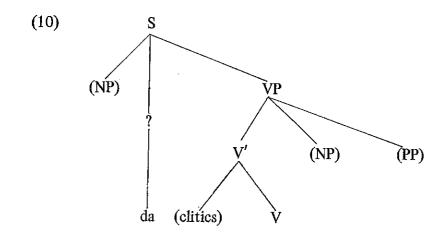
However, other than the clitics, no material can ever intervene between da and the verb. Even adverbials, which can occur nearly anywhere else in the sentence, cannot separate them; the following would be good if the adverb were in some other position.

- (9) a.\* Kakvo da sega pravim? what to now do-1s

  (What should we do now?)
  - b.\* Iskat da napulno svuršim rabotata do utre. want-3p to fully finish-1p work-the by tomorrow (They want us to completely finish the work by tomorrow.)

Assuming the clitics and V to be dominated by a single node — call it V' for convenience — da is always immediately pre-V'. The restriction of da to this position is constant in both root and embedded S's, direct and indirect questions, relative clauses, in short, everywhere; and this restriction is not shared by any major category. Bulgarian NPs and AdjPs occur in various positions both before and after the verb. Verbs obviously do not have to be preverbal, and adverbials, conjunctions, articles, complementizers, prepositions, and other categories also do not follow this particular restriction. The only other elements that are always preverbal are several verb-like modals, which will be discussed below and shown to be in AUX as well. It would, of course, be possible to account for the placement of da by a rule moving it there from some other deep structure position, but there is no evidence as to what that source position would be. It has already been shown that COMP is not a viable candidate.

I conclude, therefore, that da is generated in its surface position before the VP; (10) is a preliminary approximation of the base structure of a sentence containing da.



The node marked "?" can in fact be analyzed as AUX, given the ASW definition, as we shall see below.

I turn now to the semantic criteria for AUX-hood, namely, that the AUX node should dominate elements expressing tense and/or modality. Da does not express tense (although it does correlate with certain tenses),<sup>3</sup> but it does express modality, and the other elements I propose to include in AUX all express either tense or modality as well. The exact semantics of da is a question which has given rise to considerable controversy among Bulgarian scholars. I will not attempt an in-depth treatment of this problem here, but will simply give a brief overview of the subject.

Da has at least four more or less distinct usages (or 'meanings'), all of which are, however, probably relatable to a common semantic core of counterfactuality combined with possibility and/or desirability. The major usages of da are:

- (I) Conditional ('if, even if, if only'): see (11).
- (II) (quasi-)Imperative ('lets, let him') [da in this sense is used most often with first and third persons, which have no other imperative; but it can occur with second person subjects as well]: see (12).
  - (III) Purpose ('in order to'): see (13).
- (IV) Introduces complement to verbs, nouns, and adjectives of desire, expectation, and the like ('prospective' complements): see (14).

## Examples:

- (11) a. No i da bjaha zabeljazali tija nešta... but and to were-3p noticed-pl these things

  But even if they had noticed these things...
  - b. Daže da umra, pak njama da gi pija. even to die-1s still won't to them drink Even if I die I won't drink them.
- (12) a. Sekretarite da zapisvat. secretaries-the to take-notes-3p

  Let the secretaries take notes.
  - b. Da svuršim s tozi razgovor! to end-1p with this conversation Let's put an end to this conversation.
- (13) a. Legnete da vidim kak ste. lie-down-2p to see-1p how are-2p Lie down so we can see how you are.
  - b. Dojdoha hora da slušat lekciite ti. came-3p people to hear-3p lectures-the your People came to hear your lectures.
- (14) a. Vie iskate da mŭlčim. you want-2p to be-quiet-1p You want us to ge quiet.
  - b. Predpočitam da igraja tenis. prefer-1s to play-1s tennis I prefer to play tennis.

In all of these cases the da clause is counterfactual in that it either did not occur (11a) or has not yet occurred either at the time of the utterance or at the time indicated by the higher clause. The elements of possibility/potentiality and of an intention or wish for that potential to be realized are also recurring themes, although they do not hold for all cases. A number of

scholars have studied the modal properties of da (see for example Mutafchieva (1970), Penchev (1973), Schick (1977)) and have come to various conclusions,<sup>4</sup> but all of them that I am aware of agree in including some sort of modality in their analyses of the meaning of da. I concur with the majority of Bulgarian linguists in believing that da does express modality, although that modality has yet to be precisely defined. Da thus fits ASW's semantic criterion for being an AUX, as well as at least part of the syntactic criterion; that is, it is distinct in its syntactic behavior from other categories. Consideration of the constituent status of the AUX in Bulgarian must be deferred until after taking a brief look at some other possible components of the AUX.

### 3. THE AUXILIARY VERBS

All of the likely candidates for inclusion in the Bulgarian AUX other than da are verbs or at least verblike elements, which occur both as fully inflected main verbs and in an invariant ('uninflected') form as auxiliaries. The verbs in question are the following:

	Meaning when uninflected	Meaning when inflected
šte	will	want
njama	will not	be nonexistent
trjabva	must/should	be necessary
biva	ought	happen, be

When these occur in constructions like those in (15), that is, when they are in the position between (FOCUS) and (da)-V, they appear in the invariant form, identical to the third person singular inflected form, regardless of the person and number of the subject. In other types of constructions (cf. the examples in (16)), they agree in person and number with the subject, like ordinary verbs.

(15) a. Ti šte izpusneš vlaka. you will miss-2s train-the You'll miss the train.

- b. Nie *njama* da zabravim. we won't to forget-1p We won't forget.
- c. Ti trjabva da otideš. you must to go-2s You should go.
- d. Ti ne *biva* da izpuskaš urocite. you neg ought to miss-2s lessons-the *You shouldn't skip classes*.
- (16) a. Da praviš kakvoto si šteš. to do-2s what refl want-2s.

  Do whatever you want.
  - b. Nie *njamame* vreme. we don't-have-1p time

    We don't have time.
  - c. Ti mi *trjabva*š. you me-dat are-necessary-2s I need you.
  - d. Sŭbranijata *bivat* vednŭž v sedmicata. meetings-the are-3p once in week-the *Meetings take place once a week*.

The opposite distribution of inflections is never possible. The fully inflected form of these four verbs cannot occur before (da)-V, nor can the invariant form occur as a main verb. Compare (17) to (15b, 16b).

- (17) a.\* Nie *njamame* da zabravim. we don't-have-1p to forget-1p
  - b.\* Nie *njama* vreme, we won't-1p time.

The uninflected verbs in (15) fit ASW's criteria for AUX-hood quite well: they express the notional categories of Tense (ste, njama) or Modality

(trjabva, biva), and they differ syntactically from ordinary verbs, including those in (16), in not taking person/number agreement. Other verbs do agree with the subject in V-da-V constructions, even if they require identical subjects for the two verbs. See (18a-c) and examples throughout this paper.

- (18) a. Az prodŭlžavam da peja. I continue-1s to sing-1s

  I keep singing.
  - b. Ti produlžavaš da peeš. you continue-2s to sing-2s You keep singing.
  - c. Te produlžavat da pejat. they continue-3p to sing-3p

    They keep singing.

These facts warrant giving serious consideration to the possibility that njama, trjabva, etc. are not true verbs, but rather auxiliaries, in the non-inflecting type of construction. Ste behaves like a 'real' verb in terms of person/number agreement in the past tense, but njama, trjabva, and biva remain uninflected; here again the invariant form is morphologically third person singular.

- (19) a. Az štjah da četa.

  I would-1s to read 1-s

  I was going to read.
  - b. Ti šteše da četeš. you would-2s to read-2s

    You were going to read.
  - c. Nie štjahme da četem. we would-1p to read-1p

    We were going to read.

$$I \left\{ egin{aligned} \textit{wasn't going to} \\ \textit{had to (should have)} \end{aligned} \right\} \textit{read.} \\ \textit{ought not to have} \right\}$$

When not followed by (da)-V, njama etc. do inflect for person and number in the past tense, just as they do in the present; compare (16b) and (20).

We didn't have time.

There are a few other so-called 'impersonal' verbs in Bulgarian, that is, verbs which exhibit a lack of person/number agreement in certain constructions, where they occur in a morphologically third person singular form regardless of the subject of the sentence. These verbs differ from the auxiliaries, however, in that they precede rather than follow the FOCUS. The following are some examples containing one such verb, može 'can, is possible'.5

- (21) a. Ne može nie da dojdem dnes. neg is-possible we to come-1p today.

  We can't come today.
  - b. Može li az da peja? is-possible Q I to sing-1s

    May I sing?

It is clear that može and similar verbs are properly analyzed as being in a higher S; they are outside of the clause which contains the NP translated into English as the subject of the whole sentence, and therefore have no reason to agree with it. This is not true of the verbal auxiliaries, which are, on the contrary, clearly in the same clause as the subject, at least in surface structure, and should be expected to agree with the subject if they were true verbs.

Another element which might be considered an auxiliary verb is sum 'to be', which is used in the formation of several of the past tenses or aspects:

- (22) a. Az četoh.
  - I read.
  - b. Az sŭm čel. I(m.) have read.
  - c. Az bjah čel.

I(m.) had read. (bjah = past tense of sŭm)

However, sum differs from the other proposed auxiliary verbs in several rather crucial ways: (1) Ste, njama, trjabva, and biva, as well as da, are followed by a tensed verb with regular verbal morphology, while sum is followed by a participle, that is, basically an adjective with regular adjective morphology, gender agreement, etc. (2) Sum itself is fully inflected as a verb in all its uses, while a characteristic feature of the other proposed auxiliaries is their lack of person/number agreement, their only inflection being for past vs present tense. (3) Sum is a clitic on the participle and forms a constituent with the other clitics (Az [sum go] čel / Čel [sum go] 'I have read it'), while none of the other proposed auxiliaries are part of the clitic group. Because of these syntactic and morphological traits I consider sum to be a verb (albeit a slightly odd one, considering its clitic status) and not an auxiliary.

The elements which I propose including under the node AUX, then, are da, šte, njama, trjabva, and biva. It should be noted that two or even three of these can occur together: njama, trjabva, biva, and in certain non-standard dialects also šte, require a following da (cf. examples (15)), and the sequence šte trjabva da also occurs:

(23) Šte trjabva da mi pišeš. will must to me-dat write-2s

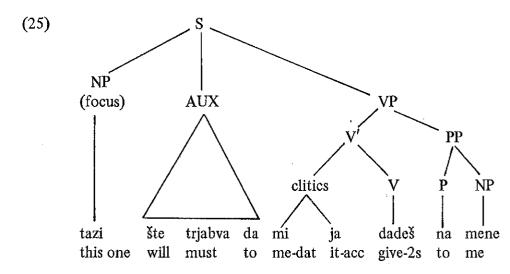
You'll have to write to me.

One crucial question remains for our analysis of these elements as an AUX, namely that of constituent status. In order to claim that, for example, the sequence šte trjabva da (or any other existing sequence of the proposed auxiliaries) constitutes an AUX in the sense of ASW, it is necessary to show that it is a constituent. This is unfortunately not easy to do. There are, to the best of my knowledge, no rules which move the auxiliary sequence or any part of it, nor can it be replaced by any sort of pro-form, nor deleted, so the usual tests for constituency do not work. There is, however, some evidence suggesting that the auxiliary sequence is a constituent, based on the constituents which surround it.

The position of the auxiliaries is between the FOCUS and the Verb-clitic group (V'). The FOCUS consists of some material, usually an NP or PP, which is moved into the underlying subject position by a Focusing rule. If movement rules can only move constituents, then the FOCUS is a constituent by definition. The clitic group which immediately follows AUX is a constituent by the same reasoning, since it permutes around the following verb (see examples (7)). The verb and clitics together are also presumably a constituent, since if V deletes (e.g. by Gapping) or moves, the clitics must go with it; they cannot attach to anything other than V. The auxiliaries lie between the FOCUS constituent and the V' and belong to neither of them; this at least suggests that they form another constituent, i.e. AUX. The phrase structure rules under this analysis will include something like (24); (25) shows the structure of a sentence containing a focused NP, AUX, and clitics.

(24) a. 
$$S \rightarrow NP AUX VP$$

b. AUX 
$$\longrightarrow$$
 (§te)  $\left\{ \begin{cases} trjabva \\ njama \\ biva \end{cases} \right\}$  (da)



You'll have to give this one to me.

Another type of evidence often used to show that two or more elements are a single constituent is whether any material can be inserted between them. If a sequence is uninterruptable, it is likely that it forms a constituent, on the assumption that material can be inserted at constituent margins. However, if some material can be inserted, the sequence is not *necessarily* proved not to be a constituent; constituents can sometimes be interrupted. For example, in certain (rather archaic) styles in Bulgarian, clitics can interrupt an NP:

(26) Hubava si e moma mila. pretty refl is girl washed-f.

A pretty girl washed herself.

In (26), hubava moma is clearly an NP. In this style, clitic placement ignores constituent structure altogether and puts the clitics after the first word of the utterance regardless of whether that word is a complete major constituent or not (and not necessarily adjacent to V, as in modern standard Bulgarian).

Returning to AUX, the string FOCUS 
$$-$$
 ste  $\begin{cases} njama \\ trjabva \\ biva \end{cases}$   $-$  da  $-$  V can be

interupted after FOCUS (i.e. before the start of the postulated AUX constituent) and before da, but not anywhere else. The following example uses the adverb nepremenno (definitely) to illustrate the possibilities for insertion.

(27) A na nego (nepremenno) šte (\*nepremenno) trjabva but to him will must (nepremenno) da (\*nepremenno) ja dadeš. to it-f-acc give-2s

But you'll definitely have to give it to him.

The impossibility of inserting adverbs after ste and da may have to do with the fact that, unlike trjabva, njama, biva, they are stressless and form a single phonological word with whatever follows them. If adverb transportation is a very late rule, applying after ste and da have become attached (by some cliticization process, presumably) to the following word, the lack of insertion after them would be accounted for. Note the similar restriction on such sequences as have to (hafta) and got to (gotta) in English, where nothing can be inserted in between the two elements which form a surface phonological word:

- (28) a.\* I have absolutely to get out of here.
  - b.\* I have got absolutely to get out of here.

but:

c. I have absolutely got to get out of here.

The insertion facts fail to give any firm evidence for AUX as a constituent in Bulgarian — the cases where insertion is impossible can be independently accounted for by the cliticization of da and šte onto the following word — but, as pointed out above, they cannot prove it is *not* a constituent at any stage of the derivation either. We are thus left with no definitive evidence for the constituent status of AUX but also no definitive evidence against it.

The fact that da and V' cannot be separated suggests at first glance that da might in fact be part of V' rather than being in AUX, or perhaps even that the entire AUX is dominated by VP rather than being its sister under S. The analysis of da as cliticizing onto the following V' makes it unnecessary to account for their inseparability by placing da in the same (deep structure) constituent as V', although it of course does not rule out such an analysis. Note however that whatever evidence there is for da being in VP holds for ste as well, since no adverb can be inserted between ste and V' either, when ste is the last auxiliary:

(29) Az šte (\*nepremenno) vi dam knigata. I will definitely you-dat give-1s book-the (I will definitely give you the book.)

Thus if da is in VP, the rest of the proposed AUX must also be there.

Although its constituent status remains somewhat uncertain, I tentatively conclude that Bulgarian does have an AUX (assuming, of course, the correctness of the ASW definition), and that it contains the particle da as well as the four non-agreement-marking verbs šte, njama, trjabva, and biva. Da appears historically to have been a complementizer; it is a complementizer in closely related languages (e.g. Serbocroatian) and retains many complementizer-like functions even in Bulgarian. The other auxiliaries are all clearly verbal in origin. The boundary between auxiliaries and complementizers, on the one hand, and auxiliaries and verbs, on the other, remains quite fuzzy; the problems of precisely how and where to draw the line between these categories, and the question of what kinds of historical and synchronic relations there are between them are clearly areas which deserve much more research.

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#### NOTES

- <sup>1</sup> Some verbs, of course, can take more than one complement type, and nouns and adjectives also subcategorize for a complement with da, če, or dali:
  - i. Vidjah če horata igrajat.

    I saw that the people were dancing.
  - ii. Vidjah horata da igrajat.

I saw the people dancing.

iii. Vidja li dali igrajat horata?

Did you see if the people were dancing?

- iv. čuvstvoto če (vs) želanie da (vs) vůprosůt dali feeling that desire to question whether
- v. dobre če (vs) gotov da (vs) ne sigurno dali good that ready to not certain whether

<sup>&</sup>lt;sup>2</sup> Li may in fact be identical to dali in underlying representation: a single question element may be 'spelled out' as dali if it remains in COMP and as li if it moves to some

other position. There are, however, some problems with this analysis which need not concern us here. In any case, the identity or non-identity of li and dali is not crucial to the present argument.

- <sup>3</sup> The verb following da is virtually always present tense except in the conditional usage, where it is usually past.
- <sup>4</sup> Mutafchieva states that da in at least some constructions expresses modality in that the action is desired to various degrees, ranging from a wish to a command. Penchev considers the modal properties of da to be desirability and obligation, and hypothesizes that these properties are due to an abstract underlying verb 'to demand', which has the features [+ desire, + obligation] in those cases where da is not governed by a verb in a higher clause. Schick gives a rather long list of features compatible with the modality of da: possibility, necessity, ability, readiness, etc., and symbolizes the features of da itself with the abstract symbol [± H].
- <sup>5</sup> Može also occurs after the FOCUS, but there it does inflect for person/number agreement and attributes ability to the subject rather than possibility to the situation:
  - i. Az moga da peja. I can-1s to sing-1s

    I can sing.
- 6 It should be noted that sum also occurs in copular constructions where it is followed by an AP, NP, or AdvP rather than a participal form. Although sum is clearly the main (and only) verb in such sentences, it is still a clitic and cannot occur S-initially (cf. example (7)):
  - i. Az süm lekar (\( \) (\( \) (\tau \) tastliv, v gradinata)

    I am doctor (happy, in garden-the)

    I am a doctor (happy, in the garden).
  - ii. Lekar (stastliv, v gradinata) sum.

but:

iii. \* Sum lekar (stastliv, v gradinata).

Evidently, cliticness is not incompatible with verb status, any more than it is with other categories, such as pronoun or AUX.

<sup>7</sup> Kaisse (1981) argues against a Bulgarian AUX consisting of the clitic forms of sum and the pronominal clitics. This has absolutely no relation to the AUX I am proposing, which contains da and the uninflected modals, but neither sum nor any pronouns. Kaisse's hypothetical AUX is the clitic group which I consider to be attached to V under V'.

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