AN EVIDENTIAL MODAL IN BULGARIAN:
THE INFERENTIAL FUTURE[*]

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In Bulgarian, **šte (FUT)**, used in 'ordinary' futures, may also signal an inference or deduction based on indirect evidence made at Speech Time, similar to epistemic *will* in *He will (must) be in Toronto right now*. Such a presumptive reading is mentioned in descriptive grammars (Nitsolova 2008; Pašov 1989, 2005; Scatton 1983, a.o.), but has not been discussed in the recent literature on Bulgarian evidentials, which mainly concerns the epistemic of the 'Renarrative Mood' (Arregui, Rivero, and Salanova 2014; Izvorski 1997; Koev 2011, 2014; Rivero and Slavkov 2014; Sauerland and Schenner 2007, 2013; Smirnova 2013a-b, a.o.). The aim of the present study is to examine inferential **šte** within the views of formal syntax and semantics.

We argue that **šte**, as a marker of presumptive meaning, is an evidential modal fit for deductions, not reports. It takes a tensed complement that encodes the time of the depicted event as past or present, but not future. Inferential **šte** often shares form with prospective (future) **šte**, but we argue in §2 that the two should be formally differentiated. We compare inferential **šte** to epistemic modals in §3, and propose that it is a degree expression without fixed quantificational force. In sum, **šte** is an evidential for inferences that participates in a dedicated morpho-syntactic system not shared by prospective **šte**, so it cannot be viewed as an 'evidential strategy' (Aikhenvald 2004) parasitic on prospective **šte**.

1.   Introducing Prospective *Šte* And Inferential *Šte*

Let us introduce Bulgarian future constructions, which always contain **šte** and are thus periphrastic.[1]

List of abbreviations: 1SG=1st person singular (etc.), FUT=future (analytic marker), IMP=imperfective aspect, IMPERF=past imperfect tense, NEG=negation (synthetic marker), PP=past participle, PR=prefix, PRES=present tense, PRF=perfective aspect, Q=question (analytic marker). The glosses are intended to highlight the details relevant to the topic of the paper, and do not exhaust the linguistic information encoded in the data.

[1] In syntax and morphology, Bulgarian futures differ from East/West Slavic futures which, when perfective, bear present morphology (i.a) and are ungrammatical with auxiliaries (i.c). By contrast, all Bulgarian futures display **šte** (i.b), and present perfective verbs are ungrammatical in main clauses (i.d).

(i)	a.	Naš	poezd	**ot-pravit-sya**		v	10	časov.	(Russian)
		our	train	PR-leave.PRES.PRF.3SG		at	10	o'clock	
		'Our train will leave at 10 o'clock.'							
	b.	Našijat	vlak	**šte**	**za-mine**	v	10	časa.	(Bulgarian)
		our	train	FUT	PR-leave.PRES.PRF.3SG	at	10	o'clock	
		'Our train will leave at 10 o'clock.'							
	c.	*Naš poezd	**budet ot-pravit-sya**	v 10 časov.	(Russian)				

1.1 Prospective *Šte*

Patterns (1a-b) illustrate future readings we call 'prospective', which are forward-shifted with Event Time following Speech Time. They also illustrate that **šte** combines with imperfective verbs, *piša* in (1b), and perfective verbs, *na-piša* in (1b).

Context: The instructor in your class asks about your final paper: (1a). You reply with (1b), pointing to the title of an article.

(1) a. *Gotov   li   **šte**   ti   e   doklada
       ready   Q   FUT   your.POSS   be.PRES.IMP.3SG paper.the
       skoro?
       soon
       'Will your paper be ready soon?'

     b. **Šte**   piša,   (**šte**   piša)   i   **šte**
       FUT   write.PRES.IMP.1SG   (FUT   write.PRES.IMP.1SG   and   FUT
       go   na-piša.
       it.ACC   PR-write.PRES.IMP.1SG
       'I will write and write, and I will finish it.'

1.2 Inferential/presumptive *Šte*

Presumptive **šte** is an evidential modal indicating deductions/inferences, as (2-3) illustrate (not reports).[2]

Context: Your friend asks you which one among 3 singers in a photo is the winner of a competition. You listen to a tape, and pointing to one singer you state:

(2) a. Tazi   **šte**   (da)   **e**   pobeditelkata.
       This   FUT   (da)   be.PRES.3SG   winner.the
       'This one must be the winner.'

Context: You cannot see Ivan but hear noise next door. You state:

(3)   Ivan   **šte**   (da)   **piše**   pismo   v
       Ivan   FUT   (da)   write.PRES.IMP.3SG   letter   in
       sasednata   staja   v   momenta.
       neighbor.the   room   in   moment.the
       'Ivan **must be writing** a letter in the room next door right now.'

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[2] Inferential **šte** contrasts with the evidential of the Renarrative Mood, also known as *preizkazno naklonenie* 'discourse mood' (Andrejčin 1977), *énonciation médiatisée* 'mediated enunciation' (Guentchéva 1996), Perfect of Evidentiality (Izvorski 1997), *vid na izkazvaneto* 'discourse aspect' (Kučarov 1998: 413), and Indirect (Koev 2011, 2014) (also Pašov 2005; Nitsolova 2008 for recent descriptions). Pašov (2005) considers that *da* in (2-3) is optional, an item we do not discuss.

Inferential ***šte*** is felicitous when the evidence is indirect, as in (2-3), and infelicitous when direct, as in (4):

Context: You look into the next room, identify the person there as Ivan, and his action as one of writing a letter. You state:

(4) #Ivan **šte** (da) **piše** pismo.
  Ivan FUT (da) write.PRES.IMP.3SG letter
   'Ivan **must be writing** a letter.'

We define direct/indirect evidence in terms of propositions (Matthewson 2011, a.o.). It is direct if the event depicted by the proposition in [M [Proposition *Ivan write a letter*]] is 'seen' as it occurs. Indirect evidence concerns incomplete propositions, for example doubts on the agent's identity (Ivan or Peter?), the activity (Writing or reading?), or results (A letter or a book?). Inferential ***šte*** participates in the two-way orientation of modals. (a) It is anchored to Speech Time/signals a present inference when in main clauses. (b) But the inference may concern present or past events. With present complement verbs, (2-3), inferences are about present events. With present perfect, (5-6), or imperfect complement verbs (7), inferences are about the past. In §2, we argue that inferential ***šte*** does not depict events that extend into the future, in contrast with prospective ***šte***.

Context: You wonder why Ivan never went to Paris. Since his mom lives there, you suppose that she often told him to visit. You state:

(5) Tja **šte** (da) mu **e** **kazvala** mnogo
  she FUT (da) he.DAT be.PRES.3SG tell.PP.IMP many
  pati da ja poseti.
  times da she.ACC visit.PRES.3SG
   'She **must have told** him to visit her many times.'

(6) Ivan **šte** (da) **e** **iz-tŭrpjal** mnogo
  Ivan FUT (da) be.PRES.3SG endure.PP.PRF a.lot
  prez vojnata.
  during war.the
   'Ivan **must have endured** a lot during the war.'

Context: You went to a party but forgot the name of a guy you met there. You state:

(7) Maj Ivan **šte** da **beše**.
  Maybe Ivan FUT da be.IMPERF.3SG
   'Maybe it was Ivan.'

Aspect is encoded in the verbs that complement ***šte***. Present perfects with imperfective participles signal ongoing/repetitive events: *kazvala* (5). Perfective participles describe episodic/resultative events: *iz-tŭrpjal* (6).

In sum, the evaluation time of a modal claim with inferential ***šte*** is NOW (in Condoravdi's 2000 terms, the 'temporal perspective' is fixed). The time of the depicted

event can either coincide with, or precede, Speech Time (in Condoravdi's 2000 terms, the 'temporal orientation' may vary), but in the next section we see that it cannot be future.

Inferential *šte* always remains invariable, in contrast with future auxiliaries. Prospective *šte* does not overtly encode tense/person/number in (1), but we argue in §2 that is must be paired with the future auxiliary of past futures and past future perfects that overtly inflects. In (8) we sketch a (simplified) syntactic structure for inferential *šte*.

(8)   [MP   [M *šte*] [TP [Tense]   [ASPECTP [Aspect] [VP V]]]]

Based on Rivero (1994), a.o., *šte* heads a Modal Phrase (MP), which dominates both the Tense Phrase (TP) and Person/Number if independent of T. TP scopes over Aspect Phrase (AspP) for Viewpoint. Inferential *šte* above T does not inflect for tense/person/number.

2.   Distinguishing Between Inferential *Šte* And Prospective *Šte*

There exists a long debate on forms such as English *will,* which display epistemic and prospective readings. Do they share a common semantics disambiguated in context (Lyons 1977, a.o.), or do they represent two temporal/modal operators (Hornstein 1990, a.o.)? Here we argue that in Bulgarian, inferential *šte* must be differentiated from prospective *šte* in syntax and semantics, so the contrast is grammaticalized.

Bulgarian constructions with prospective and inferential readings may overlap in form, as (9-10) illustrate (our glosses and translations).

(9)   Kato   se   sreštnete   s   nego   sled edna sedmitsa,
            when   REFL   meet.PRES.PRF.2PL with he.ACC   after one   week
            toj   **šte**   **e**   **razbral**   istinata. (Pašov 2005)
            he   FUT   be.PRES.3SG   learn.PP.PRF   truth.the
            'When you meet with him in one week, he will have learned the truth.'

(10)   Nespokoen   e   nešto -   **šte**   **e**
            Uneasy   be.PRES.3SG   something-FUT be.PRES.3SG
            razbral   istinata. (Pašov 2005)
            learn.PP.PRF   truth.the
             'He is somewhat uneasy (at present) - he must have learned the truth.'

In (9), *šte* with a present perfect complement receives a forward-shifted reading: learning the truth will occur after Speech Time. By contrast, the most natural reading for the identical sequence in (10) is epistemic: learning precedes Speech Time. Sentence (10), however, is ambiguous, with a less natural forward-shifted reading, as in *He will (soon) have learned the truth; from that moment on, he will no longer appear uneasy as he seems to appear now*. At first sight, then, (9-10) could support the view that inferentials and prospectives share semantics, with disambiguation triggered by the (linguistic) context. However, we next argue that the grammar of Bulgarian distinguishes between inferentials and prospectives, and we develop three arguments to motivate this view.

2.1 Negation

In Bulgarian, inferentials and prospectives may be differentiated by negation. Negative inferentials contain **ne** before **šte**, (11). This sentence signals an unambiguous inference made as we speak about an event located before Speech Time.

(11)   Ivan   **ne**   **šte**   e   izpratil   pismo
          Ivan   NEG   FUT   be.PRES.3SG   send.PP.PRF   letter
          (včera/   #utre).
          yesterday/   tomorrow
          'Ivan may not have sent a letter (yesterday/#tomorrow).'

By contrast, negative prospectives contain auxiliary **njama** (**NEG+FUT**). Thus, (12) tells us about an event located after the time of the utterance.

(12)   (Utre)   **njama**   da e   napisala   knigata.
          (tomorrow)   NEG+FUT da be.PRES.3SG   write.PP.PRF   book.the
          '(Tomorrow) she will not have written the book.'

Given the above contrast, we can compare (9) with (13) as a prospective. Likewise, (14) corresponds to (10), with the form of an inferential and an unambiguous epistemic reading.

(13)   Kato   se   sreštnete   s   nego   sled edna sedmitsa,
          When   REFL   meet.PRES.PRF.2PL with   he.ACC   after one   week,
          njama   da   **e**   **razbral**   istinata.
          NEG+FUT   da   be.PRES.3SG learn.PP.PRF   truth.the
          'When you meet with him in one week, he will not have learned the truth (at some future time from the time of utterance).'

(14)   Nespokoen   e   nešto -   **ne**   **šte**   **e**
          uneasy   be.PRES.3SG   something NEG   FUT   be.PRES.3SG
          razbral   istinata.
          learn.PP.PRF   truth.the
          'He is somewhat uneasy (at present) – it must be that he has not learned the truth (at some past time before the time of utterance).'

Negation, then, supports the hypothesis that Bulgarian grammaticalizes the contrast between inferentials and prospectives, thus arguing against their unification. The above patterns also show that inferentials specialize in locating the description of events in the past or present, but cannot extend into the future. Constructions that extend into the future should thus be viewed as 'predictive', not 'inferential'.

In sum, the grammar of Bulgarian grammaticalizes prospectives and inferentials. Inferential *(ne) šte* specializes for epistemic information, with actual/realis-like readings that speak of (possible) present/past events, not future events. Prospective *šte* and *njama*

display readings that could be dubbed non-actual/irrealis/predictive, as they speak of events that may extend indefinitely into the future.

2.2 Tense, Person, And Number Inflections

In (1), Prospective *šte* does not overtly inflect. However, we earlier suggested that this form should be paired with the future auxiliary of past futures and past future perfects, which is inflected in Bulgarian.[3] By contrast, we mentioned that inferential *šte* is invariable. Let us motivate this proposed second difference between inferentials and prospectives. We illustrate past futures in (15a-c), and past future perfects in (16).

(15) a. **Štjah**   da   na-piša   kniga utre/   včera.
FUT.IMPERF.1SG   da   PR-write.PRES.1SG   book tomorrow   yesterday
'I would write a book tomorrow.'/'I would have written a book yesterday.'

     b. Ivan   **šteše**   da plati   mnogo   pari.
Ivan   FUT.IMPERF.3SG   da pay.PRES.PRF.3SG   much   money
'Ivan {would pay/would have paid} a lot of money.'

     c. Utre   Ivan   **šteše**   da xodi   na   gosti na
tomorrow Ivan   FUT.IMPERF.3SG   da go.PRES.IMP.3SG on   visit at
majka   si. (adapted from Rivero and Slavkov 2014)
mother   POSS
'Tomorrow Ivan would/was going to go on a visit to his mother.'

(16)   Do   17   časa   včera   **štjah**   da   sŭm
by   17   hour   yesterday FUT.IMPERF.1SG da   be.PRES.1SG
na-pisala   knigata.
PR-write.PP.PRF   book.the
'By 5 o'clock yesterday I would have written the book.'

     In morphology and syntax, past futures (15a-c) and past future perfect (16) contain a future auxiliary inflected for the imperfect tense, person, and number. The differences are encoded in the complement. Past future complements display present verbs: *xodi* in (15c). Past future perfect complements contain present perfects with an auxiliary and a past participle with aspect: *sŭm napisala* in (16).

     As to interpretation, past futures and past future perfects display several (complex) meanings, which we do not survey. So-called past futures, for instance, may project into the past or the future in relation to Speech Time, (15a)[4] (or be used for present events, not

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[3] Future/prospective *šte* was still overtly inflected for person / number in the 19th century and could be negated with **ne**, now obsolete but recognizable as literary, or poetic. By contrast, inferential *šte* has always been invariable. Interested readers are referred to (Scatton 1983) for a complete inventory and basic descriptions of Bulgarian tenses.

[4] The sentence in (15a) illustrates that the Bulgarian past future auxiliary can project into the past without perfect *have* (i.e. a present perfect complement); thus, it differs from English *would*, which can only project

illustrated). Readings in past futures and past future perfects fall within the non-actual/irrealis category (in Condoradvi's 2000 terms, 'metaphysical' and not epistemic). That is, (15-16) bring to mind (implicit) if-clauses, and intentions: *I intended to have finished the book by 5 o'clock* for (16).

Negation is the factor that unifies the above inflected future auxiliary with prospective **šte**, and distinguishes it from inferential **šte**. In parallel to (plain) **šte**-prospectives, past futures and past future perfects negate with *njama,* which is inflected (imperfect/person/number), (17a-c).

(17)   a.   Ivan   **njamaše**   da   plati   mnogo
Ivan   NEG+FUT.IMPERF.3SG   da   pay.PRES.PRF.3SG   much
pari.
money
'Ivan would not pay a lot of money.'

b.   Utre   Ivan   **njamaše**   da   xodi   na
tomorrow   Ivan   NEG+FUT.IMPERF.3SG   da   go.PRES.IMP.3SG   on
gosti   na   majka   si.
visit   at   mother   POSS
'Tomorrow Ivan would not/was not going to go on a visit to his mother.'

c.   Do   17   časa   včera   Ivan   **njamaše**   da
by   17   hour   yesterday   Ivan   NEG+FUT.IMPERF.3SG   da
e   na-pisal   knigata.
be.PRES.3SG   PR-write.PP.PRF   book.the
'By 5 o'clock yesterday Ivan would not have written the book.'

In sum, prospective **šte** and the inflected future auxiliary of past futures and past future perfects pattern together. By contrast, inferential *(ne) šte* may also depict past events, as we saw in (5-7b) and (11), but remains invariable. In conclusion, prospectives inflect while inferentials do not.[5]

2.3   Conditionals

Conditionals can also be used to support the idea that inflected **šteše** patterns with prospective **šte**, and is unlike inferential **šte**. First consider contrary-to-fact conditionals. Those display a past perfect in the antecedent clause, and a future auxiliary in the imperfect in the consequent clause, as in (18a-b).

into the past if combined with perfect *have*: *Yesterday I would **have** written the book*. We derive this difference from the properties of the Bulgarian present tense in the *da*-complement in (15a-c). In such syntactic environments, Bulgarian presents are relative tenses with a temporal reference that depends on the main clause, not Speech Time. The embedded presents in (15a-c), then, are not deictic, and may function as 'pasts' when the main clause auxiliary is also understood as a (counterfactual) past, with an interpretive result equivalent to English *would have*.

[5]   The syntactic structure proposed in (8) for inferentials may not be suitable for Bulgarian prospectives. Due to their inflectional properties, prospectives could be in T or lower, but are unlikely to be in M; in view of §3, they resemble root modals, not epistemics.

(18) a.   Ako   Ivan   beše   kupil   tazi   kǔšta   minalata
          if   Ivan   be.IMPERF.3SG   buy.PP.PRF this   house   past.the
          godina,   toj   **šteše**   da   {e   platil/
          year   he   FUT.IMPERF.3SG   da   be.PRES.3SG   pay.PP.PRF
          plati}   mnogo   pari.
          pay.PRES.PRF.3SG   much   money
          'If Ivan had bought this house last year (but he did not), he would have paid a lot of money (at that past time).'

b.   Ako   Ivan   beše   kupil   tazi   kǔšta   utre, toj
          if   Ivan   be.IMPERF.3SG buy.PP.PRF this   house   tomorrow   he
          šteše   da   {e   platil/   plati}
          FUT.IMPERF.3SG da   be.PRES.3SG   pay.PP.PRF pay.PRES.PRF.3SG
          mnogo   pari.
          much   money
          'If Ivan had bought this house tomorrow (but he already bought   it),   he would have paid a lot of money (at that future time).'

Counterfactuals may project into the past, or the future. Past (18a) is felicitous if the speaker knows both that Ivan did not buy a house last year when prizes were high, and that house prizes came down. Future (18b) is felicitous as a comment on what could have happened at some future time if instead of buying the house Ivan purchased, he had waited to buy. Both (18a-b) speak of events that did not/will not take place.

A second conditional with a future marker is (19). It parallels Greek constructions that Iatridou (2000) labels 'future less vivid conditionals', which contemplate future possibilities. The antecedent has an imperfect verb, and the consequent the imperfect auxiliary of counterfactuals.

(19)   Ako   Ivan   **kupeše**   tazi   kǔšta   utre,   toj
          if   Ivan   buy.IMPERF.3SG   this   house   tomorrow   he
          šteše   da   plati   mnogo   pari.
          FUT.IMPERF.3SG   da   pay.PRES.PRF.3SG   much   money
          'If Ivan bought/were to buy this house tomorrow (an open possibility), he would pay a lot of money.'

A conditional with *šte* in antecedent and consequent clauses is (20).

(20)   Ako   **šte**   xodiš   utre,   az   sašto **šte**
          if   FUT   go.PRES.IMP.2SG   tomorrow I   also   FUT
          otida.
          go.PRES.PRF.1SG
          'If you (will) go tomorrow, I will also go.'

We do not discuss differences in the readings of the above conditionals, which depend on the form of both the antecedent and the complement of the auxiliary. We instead concentrate on negation, which formally unifies the three types: they are negated

with *njama*. In counterfactuals (21a-b) and the 'future less vivid conditional' (21c), the negative auxiliary is inflected. 'Bare' *njama* in (21d) is not overtly inflected.

(21) a. Ako   Ivan   beše   kupil   tazi kăšta
          if   Ivan   be.IMPERF.3SG   buy.PP.PRF   this house
          minalata godina,toj **njamaše**   da   e
          past.the year   he   NEG+FUT.IMPERF.3SG   da   be.PRES.3SG
          platil   mnogo pari.
          pay.PP.PRF much   money
          'If Ivan had bought this house last year, he would NOT have paid a lot of money.'

      b. Ako   Ivan   beše   kupil   tazi kŭšta   {a. minalata
          if   Ivan   be.IMPERF.3SG buy.PP.PRF this   house   past.the
          godina/   b. utre   toj **njamaše**   da   e
          year   tomorrow   he   NEG+FUT.IMPERF.3SG da   be.PRES.3SG
          platil/   plati   mnogo   pari.
          pay.PP.PRF   pay.PRES.PRF.3SG   much   money
          'If Ivan had bought this house {a. last year/b. tomorrow}, he would   NOT have paid a lot of money.'

      c. Ako   Ivan   kupeše   tazi kŭšta   utre,   toj
          if   Ivan   buy.IMPERF.3SG   this house   tomorrow he
          njamaše   da plati   mnogo   pari.
          NEG+FUT.IMPERF.3SG   da pay.PRES.PRF.3SG   much   money
          'If Ivan bought this house tomorrow, he would not pay a lot of money.'

      d. Ako   **njama**   da xodiš   utre,   az   sašto
          if   NEG+FUT   da go.PRES.IMP.2SG tomorrow I   also
          njama   da   otida.
          NEG+FUT da   go.PRES.PRF.1SG
          'If you do not go tomorrow, I will not go.'

Inferential **šte** may also appear in consequent clauses in conditionals, where it may speak of past events, (22a), so partially resembles classical counterfactuals such as (18a). However, inferential **šte** is negated with **ne**, so (22b) displays the form and meaning of an epistemic.

(22) a. Ako   Ivan   e   kupil   tazi kŭšta   minalata
          if   Ivan   be.PRES.3SG buy.PP.PRF   this house   past.the
          godina,   **šte**   da   e   platil   mnogo   pari.
          year   FUT   da   be.PRES.3SG   pay.PP.PRF much   money
          'If Ivan (has) bought this house last year, he must have paid a lot of money.'

b.

Ako	Ivan	e		kupil		tazi	house	minalata
if	Ivan	be.PRES.3SG		buy.PP.PRF		this	house	past.the
godina,	toj	**ne**	**šte**	da	e		platil	mnogo
year	he	NEG	FUT	da	be.PRES.3SG		pay.PP.PRF	much
pari.								
money								

'If Ivan (has) bought this house last year, he must/will NOT have paid a lot of money.'

In sum, negation formally divides conditionals. Conditionals with inferentials contrast with conditionals with (a) counterfactuals, (b) less vivid futures, and (c) ordinary futures, which all pattern together. [6]

Bulgarian distinguishes between epistemic **(ne) šte** and prospective **šte/njama**. In agreement with Pašov (2005), we conclude that inferentials and prospectives may often overlap in form, but represent two different paradigms. In Bulgarian, then, prospectives and inferentials are grammaticalized, and prospectives specialize for future events.

3.   Comparing Inferential *Šte* And Epistemic Modals

Bulgarian has two modals with both epistemic and root readings: *trjabva* 'must' and *može* 'may, can'. When such modals overtly inflect for tense (imperfect), person, and number, they are restricted to root readings, (23a-b), but they remain invariable under epistemic readings, (25), etc.

(23) a.

Ivan	**trjabvaše**	da	otide	do	pazara.
Ivan	must.IMPERF.3SG	da	go.PRES.PRF.3SG	to	market.the

'Ivan had the obligation to go to the market.'

    b.

Predi	**možeh**	da	bjagam	burzo,	a	sega
before	can.IMPERF.1SG	da	run.PRES.IMP.3SG	fast	but	now
veče	ne.					
already	NEG					

'Before I was able to run fast but not anymore.'

We next show that inferential **šte** and epistemic *trjabva* and *može* share four similarities. However, in 3.2, we show that they also differ: *trjabva* is universal, *može* is existential, and inferential **šte** is a degree expression.

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[6] Thus, when events depicted in consequent clauses (compositionally) count as (possibly) 'actual' (i.e. inferentials), negation must be *ne*. By contrast, events depicted in counterfactuals, in future less vivid conditionals, and in future conditionals require *njama,* which could suggest that a 'non-actual' item unifies their semantics.

3.1 Similarities

Inferential *šte*, epistemic *trjabva* 'must', and epistemic *može* 'may' are invariable (no tense, person, number inflection), they are anchored to Speech Time in main clauses, they take parallel complements, (24-26), and embed under propositional attitude verbs, (27).

(24)   Ivan   **trjabva/može**   da   **piše**   pismo.
        Ivan   must/may   da   write.PRES.IMP.3SG   letter
        'Ivan **must/may be writing** a letter.'
        (compare with (3): Ivan **šte** (da) **piše** pismo.)

(25)   Az   **trjabva/može**   da   mu   **sŭm**   **kazvala**
        I   must/may   da   he.DAT be.PRES.1SG   say.PP.IMP
        mnogo   pati.
        many   times
        'I **must/may have told** him many times.'
        (see (5): Tja **šte** (da) mu **e kazvala**   mnogo pati.)

(26)   Ivan   **trjabva/može**   da   **e**   **iz-tŭrpjal**
        Ivan   must/may   da   be.PRES.3SG   PR-endure.PP.PRF
        mnogo   prez   vojnata.
        a.lot   during war.the
        'Ivan **must have endured** a lot during the war.'
        (see (6): Ivan **šte** (da) **e iz-tŭrpjal** mnogo prez vojnata.)

Context: We are watching a crime movie: a woman's body is discovered. We discuss the identity of the killer, and you state:

(27)   Mislja,   če Ivan **šte/trjabva/može**   da   ja
        think.PRES.IMP.1SG   that Ivan FUT/must/may   da   she.ACC
        e   **ubil.**
        be.PRES.3SG   kill.PP.PRF
        'I think that Ivan must /may have killed her.'

Thus, inferential *šte* is an evidential with formal modal properties, not illocutionary properties.

3.2 A difference: Quantificational Flavor

Often, inferential *šte* is reminiscent of universal modals, but there are both declarative and interrogative contexts, where it seems closer to *može* 'may', as the comparison of (28) and (29) suggests. In our view, inferential *šte* is a **degree** modal without fixed quantificational force, as we argue next when we identify some of its characteristics.

(28)   No   zašto   **šte**   (da)gi   e   ubil

but	why	FUT	da they.ACC	be.PRES.3SG	kill.PP.PRF

(včera)?
yesterday
'But why would/should/may he have killed them (yesterday)?'

(29)   No   zašto   **može/**   #**trjabva** (da)   gi   e

but	why	may	must	da	they.ACC	be.PRES.3SG

ubil?
kill.PP.PRF
'But why may/#must he have killed them?'

     To motivate the force variability of *šte*, and thus its distinction from *trjabva* 'must' and *može* 'may', we are inspired by Kratzer (2012:41), and notions such as 'at least as good a possibility of' and 'better possibility', which holds when *p* is at least as good a possibility as *q* but not vice versa. In our view, inferential *šte* identifies an option that is better that some other option, but not necessarily the best option. Thus, the gradability of *šte* shines through in comparing possibilities, where this modal participates in patterns that are in principle excluded for universals such as *trjabva* 'must', as we show next. In spite of appearances, then, inferential *šte* should not be identified with fixed force modals. To develop our argument, we recall the scenario in (27), adding more than one suspect to the discussion of possible killers, and first note contrasts between *može* 'may'(30), and *trjabva* 'must'(31).

(30)   **Može**   da   e   bil   Ivan, ili   **može**   da

may	da	be.PRES.3SG	be.PP.IMP	Ivan or	may	da

e   bil   Boris.

be.PRES.3SG	be.PP.IMP Boris

'It may have been Ivan, or it may have been Boris.'

(31)   #**Trjabva** da   e   bil   Ivan, ili/no **trjabva**   da

must	da	be.PRES.3SG	be.PP.IMP	Ivan or/but	must	da

e   bil   Boris

be.PRES.3SG	be.PP.IMP Boris

#'It must have been Ivan, or/but it must have been Boris.'

     Sentence (30) is fine, but (31) is not felicitous because a true necessity modal like *trjabva* 'must' needs to report on an option that is better than all other options in all accessible worlds. In other words, in comparing two options *p* and *q*, (31) states that each one of them is the best, i.e. better than **every other option**. Now consider inferential *šte* in comparisons with either *može* 'may', (32), or *trjabva* 'must', (33). These sentences are both felicitous, and their different readings serve to highlight the flexibility/gradability we attribute to inferential *šte*.

(32)   **Može**   da   e   bil   Ivan, ili/no   **šte**   (da)
                 may   da   be.PRES.3SG   be.PP.IMP   Ivan   or/but   FUT   da
                 e   bil   Boris.
                 be.PRES.3SG   be.PP.IMP   Boris
                 'It could have been Ivan, but it is more likely that it was Boris'.

(33)   **Trjabva**   da   e   bil   Ivan, ili   **šte**   (da)
                 must   da   be.PRES.3SG   be.PP.IMP   Ivan   or   FUT   da
                 e   bil   Boris.
                 be.PRES.3SG   be.PP.IMP   Boris
                 'It must have been Ivan, but it could also have been Boris.'

On the one hand, both Ivan and Boris are possible options in (32), but Boris is the better or more likely option - the suspect with the more dubious alibi, for instance -, as in our free translation into English. On the other hand, (33) opposes a best to a 'better' or less likely option (a better alibi) without a clash, as in our free translation. Sentence (33), then, differs from (31), which constitutes an attempt to contrast two 'best' options. Finally, (34) involves a comparison with two *šte*, and is not felicitous. We suggest that its infelicity derives from setting up two options that are equal or 'undefined' as to which one is to be chosen as better or more likely.

(34)   **#Šte**   da   e   bil   Ivan, ili/no   **šte**   (da)
                 FUT   da   be.PRES.3SG   be.PP.IMP   Ivan   or/but   FUT   da
                 e   bil   Boris
                 be.PRES.3SG   be.PP.IMP   Boris
                 #'It must (degree modal) have been Ivan, or/but it must have been Boris.'

The comparison with existential *može* in (32), then, increases the 'strength' of inferential *šte*, which goes on to identify the better/more likely option (the suspect with a bad alibi). A comparison with the universal modal in (33) weakens *šte*, which then goes on to identify the less preferred/less likely option (the suspect with the better alibi). Both *trjabva* and *može* offer the compositional means to provide appropriate but nevertheless different standards of comparison.

The above situation suggests that a variable force modal is one that can associate with flexible rankings in comparisons - something that fixed universal modals cannot do. A variable force modal, then, need not be equated with either one of the fixed force modals. Therefore, contra a first impression, *šte* is not a universal modal in cases where only one suspect may be involved, (35).

(35)   Ivan   **šte**   da   e   bil.
                 Ivan   FUT   da   be.PRES.3SG   be.PP.IMP
                 'It must (degree modal) have been Ivan.'

Inferential *šte* brings to mind expressions with a hidden degree structure such as *tall* (a.o. Kennedy and MacNally 2005). We understand sentences such as *Mary is a tall lady* by providing some scale of tallness where Mary is above average without the need of

being the tallest (universal). Similarly, we suggest that inferential *šte* in (35) brings to mind a scale of suspects where the chances of Ivan being the killer are better than, say, those of the average possible suspect in a pool of contextually relevant possible suspects. On this view, the universal-like reading of inferential *šte* is a consequence of its comparative properties. To conclude, inferential *šte* is a **degree** modal without fixed quantificational force, which should not be identified with *trjabva* or with *može.*

4.   Conclusions

Our views on inferential *šte* in Bulgarian impinge on long debated issues concerning futures, modals, and evidentials in both general linguistics and Balkan linguistics. We conclude by relating our proposals on *šte* to some of those issues within the framework of recent theoretical views.

We argued in favor of a grammaticalized distinction between inferential *šte* and prospective *šte* in modern Bulgarian. Thus, we joined the long debate on the unity/diversity of futures, opting for a position where inferential and 'ordinary' futures are not unified in Bulgarian. This is in contrast with, for instance, some recent views on closely related languages in the Balkans including Greek (see Giannakidou and Mari 2013) and Rumanian (see Mihoc 2012).

Indirectly, we touched on the traditional debate about whether ordinary futures are modal or temporal. We concluded that in Bulgarian both inferential and ordinary futures are modal, but must be nevertheless distinguished from one another, which suggests that their modality may not be of the same type. Bulgarian 'ordinary' futures formally pattern with counterfactuals and 'less vivid futures', so are undoubtedly modal, but their agreement characteristics pair them with circumstantial modals, not epistemic modals. We may then ask if the morphological connection with circumstantials as opposed to epistemics could also hide a semantic connection.

We argued that inferential *šte* behaves like a 'tenseless' modal anchored to Speech Time, and takes tensed complements. By contrast, prospective *šte* should be paired to past future auxiliaries, which may project into the past 'on their own' (i.e. without a present perfect complement). Such an opposition between inferential and prospective markers may shed light on the proper characterization of modals for the present and those for the past, which display crosslinguistic variation (Condoravdi 2002 on English and the effect of *have*, Giannakidou and Mari 2013 on Greek and Italian, Rivero 2014 on Spanish, a.o). The distinctions in Bulgarian may also shed light on the much-debated topic of the relation between counterfactuals and inferentials.

We added inferential *šte* to the inventory of evidential markers in Bulgarian, and placed it into the modal class, not the illocutionary class. Thus inferential *šte* may shed additional light on ongoing debates on contrasts between modal and illocutionary evidentials (a.o. Davis, Potts, and Speas 2007; Faller 2002, 2011; von Fintel and Gillies 2010; Matthewson 2011; Matthewson, Davis, and Rullmann 2007).

We proposed that evidential *šte* differs from other epistemics in Bulgarian because it is a degree expression with comparative properties that distinguish it both from universal and existential modals. Thus, we added it to the inventory of forms that participate on ongoing debates on the proper definition of gradable modals (a.o. Deal 2011; Kratzer 2012; Lassiter 2010; Rullmann, Matthewson, and Davis 2008; Yalcin 2007).

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