

Petar Kehayov

**INTERACTIONS BETWEEN GRAMMATICAL EVIDENTIALS
AND LEXICAL MARKERS OF EPISTEMICITY AND
EVIDENTIALITY: A CASE STUDY OF BULGARIAN
AND ESTONIAN¹**

1. Introduction

This study is concerned with the interface between evidentiality and epistemic modality in two genetically unrelated languages. Bulgarian is a strongly ‘Balkanized’ South Slavic language with grammatical marking of evidentiality, which is largely accepted to be a non-Slavic feature in its grammar. Estonian, which like Bulgarian has grammaticalized evidentiality as a coherent category, is a member of the Finnic branch of the Finno-Ugric language family and as such is not related to the Slavic languages. What these languages have in common, however, is that they are spoken close to the external borders of the Slavic linguistic area (where Bulgarian lies within this area and Estonian just outside it) and that the historical sources of their grammatical evidentiality systems have been generally assumed to be outside of rather than inside of what could be considered a common Slavic grammaticon.

By also taking a Finno-Ugric language into consideration the present article goes slightly beyond the restrictions set by the major aims of this volume. Moreover, it also transgresses in 1) taking into consideration not only the lexical but also the grammatical coding of evidentiality, and 2) taking into consideration not only the lexical coding of evidentiality, but also, and even more so, the lexical coding of epistemicity. The reason for adopting such a broad view is that I will not be concerned so much with the individual status of different functional notions or forms, but rather with their structural interplay. Example (1) and its possible interpretations provide an idea about this structural interplay in Bulgarian.

¹ This study was supported by the Estonian Science Foundation (grant no. 7006). I am also obliged to Mati Ereht and Björn Wiemer for their valuable comments on previous drafts of this paper. Needless to say, I am solely responsible for any remaining misconceptions or errors.

(1) *Стефан май бил от Бургас.*
 Stefan probably≈it seems be.PST.PTCP(=EV) from Burgas

I will argue that, given the lack of additional context, there are four ways in which this sentence may be accessed by the person who hears it.

- (1a) The speaker has heard that Stefan is perhaps from Burgas.
- (1b) The speaker thinks/recalls that he has heard that Stefan is from Burgas.
- (1c) The speaker has heard that Stefan is from Burgas and thinks that Stefan is (perhaps) from Burgas.
- (1d) Stefan seems to be (according to the speaker) from Burgas.

(1a) concerns wide scope evidentiality, i.e. an interpretation in which the word *май* ‘probably, as it seems’ is in the scope of the report and therefore is not considered as a part of the speaker’s utterance, but as a part of the utterance of the person from whom the speaker has obtained the information about Stefan. (1b) relates to the opposite scope relation where the evidential form *бил* (the auxiliary-less past participle) is in the scope of *май*. Here the speaker thinks, but is not sure, that he has heard (somewhere) that Stefan is from Burgas. In (1c) the proposition is modified twice and neither of the two modifiers is superordinate with respect to the other. This means that both the word *май* and the evidential form *бил* independently modify the proposition. In (1d) the items *май* and *бил* are comprehended as parts of a single entity, which as such conveys both reference to the source of information (in this case the unspecified third part) and reference to the speaker’s epistemic judgement. This multiplicity of approaches is due to three possible ambiguities:

- (i) ambiguity as to whether the items are in scopal dependency or not, cf. (1a–b) vs. (1c–d),
- (ii) scope ambiguity, cf. (1a) vs. (1b),
- (iii) ambiguity based on differences in the analysis of the sequential structure of the sentence, i.e. ambiguity between free-collocation and more idiomatic reading of the sequence of grammatical and lexical modifier, cf. (1c) vs. (1d).

I will henceforth refer to the reading (1c) as ‘analytic reading’ and to reading (1d) as ‘concord (or holistic) reading’ of the sequence of grammatical evidential and an epistemic or evidential word.

The major claim of this study is that the concord account for such sequences is in many cases more adequate than an analytic or a scopal one. I will argue that the concord readings are triggered by an overlap in the functions of the grammatical evidential marker and the epistemic or evidential word. The second

important claim is that such concord readings provide a good analytical tool for diagnosing the functions of the grammatical evidentials of any language.

Section 2 introduces the major theoretical problems relevant to this study. Section 3 discusses the specific goals and the method used in the study. The types of interactions between the grammatical evidentials and the epistemic-or-evidential words are presented in Section 4. Section 5 looks for the triggers of what we call the ‘concord (or holistic) reading’, while Section 6 presents further evidence in support of the concord-hypothesis. Section 7 discusses in detail some general consequences instigated by the results of the previous sections. Section 8 summarizes the overall results of the study.

2. Key issues

Since the early 1980s there has been an upswing in interest towards delimiting the conceptual boundaries of the notion of ‘evidentiality’. More specifically, the main puzzle has been (and still is) the relationship between the notions of ‘evidentiality’ and ‘modality’. There is agreement among scholars that what is often referred to as ‘evidentiality’ is a somewhat Janus-faced category residing partly in the epistemic sector of the modal domain and partly outside it. One can distinguish between three major viewpoints as regards the relationship between these two notions: 1) (epistemic) modality and evidentiality are distinct functional categories with no overlap between them (see e.g. Nuyts 2001, 27-28; Aikhenvald 2003a; 2004, 7); 2) there is a subsumption relation between them, i.e. one of these notions includes the other one (see e.g. Chafe 1986; Kiefer 1994; Ifantidou 2001; Boye 2006: 21), and 3) there is an area of overlap, but no full subsumption (see e.g. Kozintseva 1994; Plungian 2001); the main candidate for such an area is provided by the notion of ‘inferentiality’ (see e.g. Palmer 2001, 8-9, 24; Dendale & Tasmowski 2001).²

For the purposes of this study, I will not presuppose any of the above possibilities. The only preliminaries applied henceforth are first, that these notions are conceptually graspable (if not necessarily linguistically discernable), and second, that for any form which expresses both meanings – epistemic judgement and reference to the source of information – one of these meanings is in a given context supposed to be pragmatically foregrounded or more prominent than the other.

The possibility of combining grammatical evidentials with epistemic or evidential lexemes within a single sentence is recognized and seen as a proof of the conceptual sovereignty of the notion of evidentiality (Aikhenvald 2004, 257). Unfortunately, there are virtually no studies exclusively devoted to such

² In some studies the second and the third possibility are not differentiated.

combinations. One may ask why such combinations should at all be of interest. In essence it boils down to the more general problem about the restrictions on combinability of two or more sentential modifiers, and lately there have been several attempts to formulate the principles underlying such restrictions (see e.g. Hengeveld 1989; Van Valin & LaPolla 1997, 40-52; Alexiadou 1997; Van Valin 2005, 19-21; Ernst 2006, 92-148). We will take a closer look at two studies which are of particular interest to us: Cinque 1999 and Nuyts, forthcoming. These studies are instructive not only because of their explanatory power, but also because they represent virtually opposite theoretical traditions. Cinque (1999), who approaches the problem from the perspective of the Chomskyan generative paradigm, is interested in the relative order of adverbials and functional heads as a possible sign of universal phrase-structure constraint. Nuyts, on the other hand, working within the framework of Cognitive Linguistics, is interested in the combinability of such modifiers as an indication of the hierarchical nature of the qualifications of states of affairs. Both studies arrive at rather strict hierarchies.

To begin with, Cinque's hierarchy is advanced as a universal hierarchy of clausal functional projections. The hierarchy derives from the observation that various classes of adverbs enter a strictly ordered sequence, and this ordered sequence coincides with the order of the dependent morphemes encoding various functional notions (such as mood, modality, tense, aspect and voice). It is then stipulated that these different classes of adverbs enter into a transparent Spec/head relation with the different functional heads³ of the clause. Each specific class of adverbs (e.g. tense adverbs) is an overt manifestation of a distinct functional projection, which in certain languages may also be overtly expressed in the corresponding functional head position (e.g. as a tense affix). The restrictive sequential order of the adverbs or affixes is therefore nothing but a reflection of the hierarchical relations of the corresponding functional projections. Cinque's list of projections is very comprehensive; Figure 1 presents only the first part of it (starting from left), which contains the projections 'evidential' and 'epistemic'.

Figure 1. *The universal hierarchy of clausal functional projections (modified version of Cinque 1999, 106)*

³ Cinque's notion of 'functional head' corresponds in this case to a dependent (mood, tense, aspect, or other) morpheme.

[speech act [evaluative⁴ [evidential [epistemic [tense [irrealis [deontic [habitual
[repetitive [frequentative [volitional [celerative [anterior [terminative
[continuative ...

As can be seen from this figure, evidentials (lexical or grammatical) precede (lexical or grammatical) epistemic expressions. A direct indication for this relative order is the acceptability of (2a), where the evidential adverb *evidently* precedes the epistemic adverb *probably*, compared to the unacceptability of (2b) where the opposite order is present (see Cinque 1999, 135).

- (2) (a) *Evidently John has probably left.*
(b) **Probably John has evidently left.*

Cinque (1999, 141) claims that although many of the relative orders among such functional elements may eventually reduce to scope relations (as maintained in the functionalist literature; see e.g. Bybee 1985), not all orders are so explicable. If the relative order is determined by the fact that the notion of evidentiality is semantically superordinate with respect to the notion of epistemicity, then one should not expect (3) to be acceptable:

- (3) *It is probable that it is evident that he is the guilty one.* (Cinque 1999, 135)

He assumes therefore that the hierarchy above should be considered a property of the Universal Grammar rather than only a reflection of the semantic structure (see also Cinque 2006, 119-144 for discussion).⁵

The hierarchy of Nuyts (forthcoming) (see Figure 2) is postulated in two-dimensional format, but due to space limitations we will present it here as one-dimensional, thus also simplifying the comparison with Cinque's hierarchy. While in Cinque's hierarchy the relation 'A hierarchically higher than B' was indicated with 'A [B', in Nuyts' hierarchy the relevant indexation is 'A > B'. A basic primitive in this hierarchy is the cognitive-functionalist notion of 'qualification'.

⁴ As the figure shows, Cinque draws a distinction between evaluative and epistemic modalities. Evaluative modalities do not refer to the degree of certainty in the truth of the proposition, "but rather express the speaker's (positive, negative, or other) evaluation of the state of affairs described in it" (Cinque 1999, 84). The following English adverbs could be considered evaluative: *(un)fortunately*, *luckily*, *regrettably*, *surprisingly*, *strangely/oddly (enough)*, *(un)expectedly*.

⁵ See Svenonius (2001, 211) for an explanation of examples like (3), which rescues the semantic scope account.

Figure 2. *Hierarchy of qualifications of states of affairs* (Nuyts, forthcoming)

evidentiality > epistemic modality > deontic modality > time > quantificational aspect (frequency) > phasal aspect > (parts of the) STATE OF AFFAIRS

Nuyts believes that although this hierarchy is part of syntactic and/or lexical semantic representation in grammar, it does not belong in grammar at all, but rather constitutes a primary dimension of human conceptualization (see also Nuyts 2001, 353-357). This means that although the hierarchy postulated is based on solely linguistic facts about scope relations between (and the grammatical behaviour of) qualificational expressions in language, it obviously reflects basic principles to a much greater extent, which are characterized by Nuyts as principles of human perception and conceptualization.

Both Cinque (1999) and Nuyts (forthcoming) arrive at their hierarchies using material which is strictly constrained with respect to the level of linguistic expression. As many other scholars, they explore the combinability of items, which are either lexical or grammatical, but not the combinability of lexical *and* grammatical markers. Therefore, by addressing combinations of grammatical and lexical markers of evidentiality and epistemicity respectively, we enter into an unexplored area in the research paradigm (see also Makarcev, this volume, for another contribution on this topic). The sequences of grammatical evidentials and lexical markers of epistemicity or evidentiality are significant because they involve more conventionalized meaning-to-form mapping than the sequences of two lexical markers. According to Mushin (2001, 170), we should expect 'a much higher degree of conventional mapping between actual source of information and adoption of epistemological stance in languages with grammatical evidentiality than in languages which lack such systems.' As a rule, the degree of conventionalization is mirrored in the frequency of the given pattern (see Hopper & Traugott 2003, 126-130; Brinton & Traugott 2005, 100). This means that we should expect in Bulgarian and Estonian, which have grammatical patterns of evidentiality, such combinations to be more frequent than for example in Russian, where no grammatical patterns of evidentiality exist.

Interestingly, Bulgarian and Estonian seem to allow all possible orders and combinations of epistemic words and grammatical evidentials, and therefore we are left with the possibility of drawing generalizations based on the semantic and pragmatic interpretations of such sequences, but not on their word order patterns. Furthermore, looking at the degree to which such sequences correspond to the above hierarchies, one has to admit that in Bulgarian and Estonian we are dealing with tendencies rather than with rules. Provided that in example (1) we have a co-occurrence of the arguably epistemic lexical marker

май and the arguably evidential grammeme encoded as *l*-form (auxiliary-less past participle), we can immediately identify a certain discrepancy with the above hierarchies. It is embodied by reading (1b), in which the evidential is in the scope of the epistemic – a pattern which does not conform to the above hierarchies. Nevertheless, these hierarchies appear to be strong structural tendencies as readings like (1b) are extremely rare in Bulgarian and Estonian.

3. Description of the items under consideration

Before analyzing such sequences, we need to specify which particular Bulgarian and Estonian items appertain to the notions of ‘grammatical evidential’ and ‘lexical marker of epistemicity and/or evidentiality’. We can easily delimit the universe in which we operate by referring to notions used by the traditional descriptive grammars.

Let a sequence of a grammatical evidential and an epistemic or evidential lexical marker be a sequence in which a grammatical marker classified as ‘evidential’ by the descriptive grammars of Bulgarian and Estonian co-occurs with a lexical marker classified as ‘a word (adverb or particle) expressing epistemic assessment’. The latter includes both epistemic and evidential lexemes and this is due to the fact that descriptive grammars do not postulate a separate class of evidential adverbs or particles, but include such items in the class of modal (epistemic) words (see GBE II, 405-406, 494-495 for Bulgarian and EKG II, 187-190 for Estonian). With the help of this definition, we considerably restrict the array of sequential types factored in the study. First, we retract those potential grammatical markers of evidentiality which are not descriptively promoted to a categorial status, and second, we retract those lexical markers of epistemicity or evidentiality that belong to inflectional classes, such as verbs for example. The reason for this latter delimitation is that with non-inflectional classes it is easier and faster to look for natural examples on the Internet.

In Bulgarian, the grammaticalized evidential category *преизказно наклонение* ‘renarrative mood’ (or – for those who consider its mood status problematic – the class of *преизказни форми* ‘forms of renarration’) is encoded by past active participles (ending in *-l*), which in third person singular and plural are not accompanied by the auxiliary verb *съм* ‘to be’. Compare the minimal pair in (4); (4a) conveys direct and (4b) indirect evidentiality:

- (4) a. *Стефан замина за Бургас.*
Stefan leave.AOR.3SG for Burgas
‘Stefan left for Burgas.’
- b. *Стефан заминал за Бургас.*
Stefan leave.PST.PTCP for Burgas

‘Allegedly / as it seems, Stefan has left for Burgas.’

From a typological perspective, the classificatory notions of ‘firsthand’ and ‘non-firsthand’ capture the difference between (4a) and (4b) and the Bulgarian evidentiality system corresponds to type A1 in Aikhenvald’s classification (see Aikhenvald 2004, 29-31). The ‘non-firsthand’ term comprises the meanings of reported evidentiality, inferentiality and mirativity, while the ‘everything else’ term takes default reading in which the information is acquired directly (through vision or other senses) by the speaker.

In contrast, the grammatical evidentiality system of Estonian represents the type A3 in Aikhenvald’s classification (see Aikhenvald 2004, 33). Type A3 encodes the distinction between ‘reported’ and ‘everything else’. The ‘reported’ term of the Estonian evidentiality system is labelled *kaudne kõneviis* ‘oblique mood’ and is manifested by the dedicated marker *-vat* suffixed to the first verbal form of the predicate. Compare the difference between the direct evidence in (5a) and the reported evidence in (5b):

- (5) a. *Tepan sõit-is Pärnu-sse.*
 Tepan leave-PST.3SG Pärnu-ILL
 ‘Tepan left for Pärnu.’
- b. *Tepan ole-vat sõit-nud Pärnu-sse.*
 Tepan be-EV leave-PST.PTCP Pärnu-ILL
 ‘Reportedly, Tepan has left for Pärnu.’

As for the particular items characterized as ‘a word (adverb or particle) expressing epistemic assessment’ we will use the notion of epistemicity as a cover term even though some of these items have evidential meanings. It is well known that markers of evidentiality imply different degrees of certainty about the state of affairs under consideration. In other words, at this stage we will not distinguish between items with focal epistemic meanings and items (such as evidential words) with only implicational epistemic meanings. Instead, we will catalogue lexical items according to the degree of certainty they express (or imply), i.e. we will assign each Bulgarian and Estonian item a rough position on an ‘epistemic scale’ (see Givón 1982; Akatsuka 1985; Nuyts 2001, 22 about this notion). This has been done in Table 1. Such characterization is necessary, because in Section 5 we will look for a correlation between the degree of certainty that these words induce and the way they interact with grammatical evidentials.

Table 1. *Epistemic and evidential words according to the degree of certainty*

	Bulgarian	Estonian
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FULL CERTAINTY	<i>безспорно</i> ‘indisputably’, <i>без съмнение</i> ‘beyond doubt’, <i>несъмнено</i> ‘undoubtedly’, <i>със сигурност</i> ‘certainly’,	<i>kahtlemata</i> ‘undoubtedly’, <i>kindlasti</i> ‘certainly’,
STRONG CERTAINTY	<i>вероятно</i> ‘most likely’, <i>навярно</i> ‘most likely, presumably’, <i>очевидно</i> ‘apparently, evidently’ <i>сигурно</i> ‘probably’,	<i>ilmselt</i> ‘obviously, apparently’, <i>nähtavasti</i> ‘apparently, evidently’, <i>tõenäoliselt</i> ‘probably’,
MEDIUM CERTAINTY	<i>евентуално</i> ‘possibly’, <i>май</i> ‘it seems (that), probably’, <i>може би</i> ‘perhaps, maybe’,	<i>arvatavasti</i> ‘possibly, presumably’, <i>ehk</i> ‘maybe, perhaps’, <i>vahest</i> ‘perhaps, possibly’, <i>vist</i> ‘perhaps, maybe’, <i>võib-olla</i> ‘maybe, perhaps’,
WEAK CERTAINTY	<i>едва ли</i> ‘hardly, scarcely’, <i>надали</i> ‘hardly, scarcely’	<i>vaevalt</i> ‘hardly, scarcely’,

We have 13 Bulgarian and 11 Estonian items whose co-occurrences with the relevant grammatical evidentials will be studied in the remaining part of this paper. It is worth noting that we will only be concerned with those cases where these words function as sentential modifiers, i.e. with cases where their scope is equivalent to the scope of the grammatical evidentials, which always operate at sentential level. This means that co-occurrences of grammatical evidentials and epistemic or evidential words where the latter have constituent scope are not factored in the present study.

An important caveat is that the borders between the four degrees of certainty are drawn intuitively, and it is possible that exclusive testing of the degrees of certainty would slightly modify the above classification, especially with regard to the middle area in the table. Another intuition is that the invariant meanings of the majority of the items in the table are epistemic. Only Bulgarian *очевидно* ‘apparently, evidently’ and Estonian *ilmselt* ‘obviously, apparently’ and *nähtavasti* ‘apparently, evidently’ always convey evidential meanings. With regard to Bulgarian *навярно* ‘most likely, presumably’ and *май* ‘probably, it seems (that)’ as well as to Estonian *tõenäoliselt* ‘probably’, they seem vague with respect to the distinction between epistemicity and evidentiality. As it is irrelevant for the purposes of this study whether these intuitions are fully sound or not, they will not be further tested.

The sentences where a grammatical evidential co-occurs with an epistemic or evidential word were collected from the Internet. To make the search as simple as possible, I looked only for co-occurrences where the epistemic or evidential lexeme immediately precedes or follows a verbal form grammatically marked as evidential.

4. Types of interactions

We already saw that there are four ways in which the sentence in (1) can be accessed. Accordingly, we will draw distinctions between four types of interaction between evidential grammemes and epistemic lexemes. In this section, I will discuss these types in greater detail, illustrating them with attested Bulgarian examples. Each type is introduced with a Roman number, cf.:

I. An epistemic lexeme is in the scope of an evidential grammeme. This type is exemplified in (6), an example from an online forum. The evidential form (the auxiliary-less past participle *имал* ‘have.PST.PTCP’ in bold) indicates that the speaker refers to someone else’s words. Although the referent is non-specific – what is referred to is rather the attitude of the ruling political class in the US –, the adverb *несъмнено* ‘undoubtedly’ is perceived as a part of the reported statement and is thus within the scope of the report. If EV stands for a grammatical marker of evidentiality, EP for an epistemic word, *p* for a proposition and square brackets indicate scope relations, this type can be formally represented as [EV [EP [*p*]]].

(6) *Днес всички интересуващи се знаят, че това е била*
 today all interested know.3PL that this be.3SG be.PST.PTCP
чиста лъжа. Чиста лъжа беше и повод-ът за
 obvious lie obvious lie be.IMPF.3SG also occasion-DEF for
интервенция-та в Ирак – Саддам несъмнено имал
 intervention-DEF in Iraq Saddam undoubtedly have.PST.PTCP
ОМП. Показа се, че не е
 weapons_of_mass_destruction it_turn.AOR.3SG_out that NEG be.3SG
имал, ама какво от това.
 have.PST.PTCP but what of this
 ‘Now all people who are interested know that this was an obvious lie. An obvious lie was also the excuse for the military intervention in Iraq – reportedly, there wasn’t any doubt that Saddam has weapons of mass destruction. Well, he didn’t have them as it turns out, but so what.’
 (<http://www.pro-anti.net/show.php?article=1&issue=735>)

II. An evidential grammeme is in the scope of an epistemic lexeme. Consider the background of the story in (7). For a month or so Nasko has had

some strange wounds on his legs. As he is not able to recover, he visits his Turkish friend whose grandmother says that Nasko will die if he does not follow her advice. She gives him the address of a certain imam and Nasko goes to see him. Despite the fact that the whole story is grammatically marked for indirect evidentiality (every predicate is in the form of auxiliary-less past participle), the evidential form *дал* ‘give.PST.PTCP’ (in bold) is within the scope of the word *май*. As already noted, this word lends itself both to the domain of epistemicity and to the domain of evidentiality, and can be roughly translated as ‘probably’ or ‘it seems’. The speaker in (7) no longer remembers the details reported in the sentence containing the forms in bold. By embedding the reference to the source of information in the scope of *май*, he indicates that he does not trust his memory. This type can be formally stated as [EP [EV [p]]].

(7) *Дала му координати-те на някакъв ходжа и той*
 give.PST.PTCP him coordinates-DEF of some imam and he
*отишъл при него. Ходжа-та му **дал** **май***
 go.PST.PTCP to him imam-DEF him give.PST.PTCP probably≈as it seems
някаква кърпа / не си спомням точно вече / да ти върху нея
 some piece_of_cloth NEG remember.1SG exactly anymore to sleep on it
или нещо такова и след това да му я занесе.
 or something like_this and after this to him it bring.3SG
 ‘(Reportedly), she had given him the address of some imam and he had gone to him. And then (I think the story went like this), the imam had given him a piece of cloth, – well, I don’t remember exactly anymore – to sleep on it, or something like this, and to bring it back to him after that.’
 (<http://forum.rozali.com/viewtopic.php?p=32156&sid=94472861ac1c962874a819c64d2620b9>)

Examples like (6) and (7) show that in Bulgarian scope relations are not coded by word order. In both examples the direction of scope dependency is opposite to the relevant order of the grammatical evidential and the epistemic word with respect to the propositional core. The word order is also irrelevant for the description of the remaining two types of interaction. In these two types neither the grammatical evidential nor the epistemic word takes scope over the other one, which means that these items share exactly the same semantic scope. Although often disregarded in the study of evidentiality (and related categories), such cases are not exceptional cross-linguistically (see Aikhenvald 2004, 87-95 and Boye 2006, 191-194 for examples).

III. The two items modify independently the proposition; witness the example in (8). The sequence in bold indicates that although the speaker does not have direct evidence to show how educated Abraham was, he is confident (based on common knowledge) that Abraham was a very educated man. Here the sequence of the grammatical evidential and the epistemic word can be seen

as a free collocation of two forms, which both maintain their functional identity – the first expressing reported evidentiality and the second certainty. This type can be formally stated as [EV [p]] & [EP [p]], i.e. as a conjunction of two qualifications of the status of *p*. As already noted in Section 1, I will conventionally speak in this case about ‘analytic reading’ of the sequence of evidential grammeme and epistemic word.

(8) *Днес обаче знаем, че Авраам в никакъв случай не може да*
 today however know.1PL that Abraham in NEG.PRON case NEG can.3SG to
бъде поставен на едно равнище и сравняван с
 be.3SG place.PASS.PTCP at one level and compare.PASS.PTCP with
примитивни-те, суеверни бедуини. Обратно, той бил
 primitive-DEF superstitious Bedouins on_the_contrary he be.PST.PTCP
със сигурност високопросветен човек, потомък на културно и
 with confidence highly_educated man descendant of cultivated and
високоцивилизовано общество.
 highly_civilized society

‘Yet, we know by now that there is no way in which Abraham can be put on the same level as the primitive and superstitious Bedouins. On the contrary, he is supposed to be, and we are confident about this, a well-educated man, a descendant of highly civilized society with great cultural achievements.’

(<http://www.bgbible.sdabg.net/arheolog/a-6.htm>)

IV. The two items are understood as a single entity, which as such includes both reference to the source of information and reference to the speaker’s epistemic judgement. Which one of these referential meanings prevails in this unified form, depends first on discourse-pragmatic factors and second on the genuine semantics of the items classified in the grammars as ‘evidential’ and ‘epistemic’. Using a hyphen as a mark of structural blending, this type can be stated as [EV-EP [p]]. Consider (9), in which the speaker addresses his forum mates, asking them for a favour. The string in bold cannot be disassembled into an expression of epistemicity and evidentiality. Rather, it is perceived as one unit, which as a whole conveys uncertainty based on indirect evidence. This effect is due to the fact that neither of the forms involved can be identified as only evidential or only epistemic; instead, both can express both meanings. We saw that the word *май* can be translated as ‘probably’ or ‘as it seems’. In addition, the auxiliary-less past participle *бил* (‘be-PST.PTCP’) conveys here inferentiality (an inference based on remote evidence) and has a scent of doubt in its presupposition. As a result, the two formal elements merge into one unit expressing hesitation and doubt over the state of affairs expressed in the proposition. As noted in Section 1, I will speak in such cases about ‘concord (or

holistic) reading’ of the sequence of grammatical marker of evidentiality and epistemic word.

- (9) *Ако някой скоро ще проверява в архив-а в Търново [...] нека*
 if somebody soon FUT check.3SG in archive-DEF in Tǎrnovo HOR
да види информация за име-то Цеко Иванов (или) Иванчов
 to see.3SG information about name-DEF Tseko Ivanov or Ivančov
Драшански от гр. Бяла Слатина бил се по
 Drašanski from town Byala Slatina fight.PST.PTCP on
фронтове-те на Добруджа през ПСВ, не знам в
 fronts-DEF of Dobrudja during First_World_War NEG know.1SG in
коя часте бил или какъв чин е имал.
 which unit be.3SG be.PST.PTCP or what rank be.3SG have.PST.PTCP
Мисля че май бил убит от свой другар по
 think.1SG that maybe~as it seems be.PST.PTCP killed by his friend by
погрешка докато оня нещо си оправял пушка-та, но това
 mistake while that something fix.PST.PTCP rifle-DEF but these
са само догадки.
 be.3PL only guesses

‘If anybody is going to the archives in Tǎrnovo in the near future, please let him check for information about the name Tseko Ivanov (or) Ivančov Drašanski from the town of Byala Slatina, who fought on Dobrudja front during the First World War; I don’t know in which unit or what rank he would have had. I think he may have been killed by mistake while his friend was fixing his rifle, but these are only guesses.’

(<http://forum.boinaslava.net/archive/index.php/t-6691.html>)

Note that when we mentioned ambiguity between different interpretations of (1), we did not refer to any actual ambiguity in the specific speech situation. Rather, we were concerned with the possibility of different interpretations of a particular sentence in different contexts. As can be seen from examples (6)–(9), the co-occurrences of grammatical evidential and epistemic word are usually given specific interpretation by the context, or in other words, they are disambiguated by the contexts.

In the next section we will focus on the properties of type IV, which is of main interest in this study, and we will try to identify the conditions which license such concord interpretations.

5. The triggers of the concord (or holistic) interpretation

The opposition ‘analytic vs. holistic’ access to a linguistic element was introduced into the study of grammaticalization and lexicalization by Christian Lehmann (2002b). In philosophy of language, the doctrine of semantic holism

defended by Quine (see Quine 1953) refers to the effect that a certain part of language can only be understood through its relations to a (already understood) larger segment of language. In our specific case, the concept of ‘concord (or holistic) reading’ refers to a very early phase of semantic coalescence of two formally distinguishable propositional modifiers. I will maintain that this effect is triggered by an overlap in the functions of what we referred to as ‘grammatical evidential’ and ‘epistemic word’. Previous acknowledgments of this effect on co-occurring modals include Halliday (1970, 331), Lyons (1977, 807-808) and Coates (1983, 46, 138). In a recent study, Kasper Boye classified cases with two co-occurring epistemic markers⁶, which share the same scope into four types (see Boye 2006, 189-196). His second type coincides with our notion of concord interpretation, cf.:

‘Two or more epistemic items or constructions which have overlapping meanings [...] may co-occur non-obligatorily in a unified expression of justificatory support for a proposition. [T]he co-occurring epistemic items or constructions cooperate in what may be thought of as the specification of one epistemic meaning.’ (Boye 2006, 191)

5.1. Kinds of functional overlap

Let us first elaborate on the different ways in which the meanings of the linguistic elements may overlap. In both Bulgarian and Estonian the element characterized as ‘grammatical evidential’ is a constant and the element characterized as ‘epistemic word’ is a variable. This is obvious as in both languages there is only one grammaticalized category of evidentiality, but many lexical words expressing epistemic and/or evidential meanings. Therefore we may say that the variable ‘epistemic word’ takes different values in a single language. We already saw that one of the major distinctions that can be drawn between the items in Table 1 is that some of them have predominantly epistemic functions, whereas other predominantly evidential functions. Based on the distinction between words with primary (or foregrounded) epistemic meaning and such with primary (or foregrounded) evidential meaning we can distinguish between two subtypes of our type IV:

- IV(a): [EV-EP_{~EP} [p]];
 IV(b): [EV-EP_{~EV} [p]].

⁶ In Boye’s system evidentials belong to the epistemic meaning domain.

Once more, the index EP should not be misleading – it signifies a word which is classified in the descriptive grammars of Bulgarian and Estonian as expressing epistemic assessment. The indices EP and EV on the other hand stand for the actual functional value of the signatum of EP. The first subtype is exemplified in (10); the story is about the security surveillance cameras:

- (10) *Видеомасивите на Лондон и Кайро не са интегрирани*
 video_surveillance_areas of London and Cairo NEG be.3PL integrated
на определено ниво. После се оказа, че експлозив-ът
 at certain level then turn_out.AOR.3SG that explosive-DEF
може би имал балкански произход – но дали
 maybe have.PST.PTCP Balkan origin but Q(yes/no)
складовете и въобще работата с взривни материали у
 storehouses-DEF and in_general work-DEF with explosive material at
нас например се контролира по подходящ начин?
 us for_example monitor.IMPS in adequate way
 ‘The areas with video surveillance in London and Cairo are not integrated at a certain level. It turned out then that the explosives were maybe of Balkan origin – but who knows whether here (in Bulgaria, P.K.) for example the storage of the explosive materials and the work with them in general is monitored in an adequate way.’
 (http://newteck.orbitel.bg/computer/articles.php?issue_id=56&unit_id=495&article_id=1651)

We are dealing here with a semantically and pragmatically unified expression, although it can be formally deconstructed into an expression of inferential evidentiality inducing a certain amount of doubt, and into a corroborating adverb of middle certainty (*може би* ‘perhaps, maybe’).

Comparing the examples of concord reading (9) and (10), we can see that in both cases the function of the Bulgarian grammeme expressing indirect evidentiality is contextually specified as inferential. This observation is consonant with the view according to which the inferential meaning is located at the borderline of evidentiality and modality (see van der Auwera & Plungian 1998, 85; Palmer 2001, 8-9, 24-26; Dendale & Tasmowski 2001). It is crucial however, that the concord reading is licensed also in cases where the function of the evidential form is not specified as inferential. Witness (11), in which the writer sends a query to an online forum. The evidential form *бил* ‘be.PST.PTCP’ conveys here a hearsay from unspecified source(s) and together with *май* ‘probably, it seems’, which is vague between epistemicity and evidentiality, expresses uncertainty in the truth of the proposition. Here also, I believe, a concord (or holistic) analysis is more adequate than an analytic one.

- (11) *Знае ли някой как стои въпрос-ът с цена-та на*

know.3SG Q(yes/no) anybodyhow stands question-DEF with price-DEF of
хостинг-а за Java и PHP, защото иска-м да си правя
 hosting-DEF for Java and PHP since want-1SG to REFL do.1SG
нещата на Java, а не на PHP (не го зна-м и не
 things-DEF on Java but NEG on PHP NEG it know-1SG and NEG
иска-м да го уча ако може). Май бил
 want-1SG to it learn.1SG if possible probably≈as it seems be.PST.PTCP
в пъти по-скъп.
 many times more_expensive

‘Does anybody know how the question stands with regard to the hosting price for Java and PHP since I want to do my things with Java, not with PHP (which I’m not familiar with and don’t want to learn if at all possible). It is supposed to be many times more expensive.’
<http://clubs.dir.bg/showflat.php?Board=java&Number=1937935356&page=0&view=collapsed&sb=3&vc=1>

Further evidence for the claim that the concord reading is not triggered only in contexts marked for inferential evidentiality is provided by Estonian. As already noted in Section 3, the Estonian grammatical evidential only encodes the meaning of reported evidentiality. If the necessary condition for the concord interpretation were the inferential reading of the grammatical evidential, then one would not expect to find instantiations of this interpretation in Estonian. Nevertheless, such instantiations are attested. Consider (12) in a short commentary on black economy and prostitution, published in the Estonian newspaper ‘Sakala’ on 12 March 2004.

- (12) *Olen mitme tuttava käest päri-nud, kas Viljandi-s*
 be.1SG several acquaintance from ask-PST.PTCP Q(yes/no) Viljandi-INE
on võimalik prostituuti tellida. Kõik nad on vasta-nud
 be.3SG possible prostitute order all they be.3SG respond-PST.PTCP
õlakehituse-ga või öel-nud kõhklevalt, et mõne aasta eest
 shrug-COM or say-PST.PTCP hesitantly that some year ago
vist ole-vat saa-nud küll.
 perhaps be-EV get-PST.PTCP indeed
 ‘I have asked many of my acquaintances if it is possible to order a prostitute in Viljandi (a town in South Estonia; P.K.). All of them have answered by shrugging their shoulders, or hesitantly saying that some years ago it had (perhaps) been possible.’
 (<http://vana.www.sakala.ajaleht.ee/rubriigid.html?number=576>)

Here the refusal to give a univocal answer to the question asked by the narrator, i.e. the avoidance of responsibility, is explicitly marked by the word *kõhklevalt* ‘hesitantly’. Therefore the sequence in bold is best accessed holistically. None

of the other readings seems adequate. Reading this sentence one would hardly assume that the word *vist* ‘perhaps’ is in the scope of the report (cf. reading I). Even more unlikely is the reading with narrow scope evidentiality (cf. reading II), i.e. where the people answering the question are not sure whether they have heard the facts about prostitution or not. The analytic reading (cf. reading III) is discarded because the word *vist* ‘perhaps, maybe’ and the hearsay form *ole-vat* ‘be-EV’, which induces doubt, are felt too similar and somehow functionally redundant, which means that we are not dealing with two independent qualifications of the status of the proposition.

The discussion so far brings us to the necessary conclusion that the functional overlap of the grammatical evidential and the epistemic words is larger than the area covered by the notion of inferentiality.

Consider now the second group of cases with concord reading – the subtype [EV-EP_{≈EV} [*p*]]. Here the grammatical evidential co-occurs with an evidential word and the resultant effect is different from the effect triggered by the first subtype. The difference is due to the fact that the functional domain covered by the grammatical evidential does not overlap with, but rather contains the functional domain covered by the evidential word. This is a natural consequence of the fact that lexical expressions are more specific in meaning than grammatical ones. Such sequences are therefore best accounted for in terms of specification and disambiguation (terms used by Boye 2006, 133, 191). Witness (13), where the grammatical evidential encodes a more general evidential term and the evidential adverb specifies/disambiguates the meaning of this term. The evidential form *имал* ‘have.PST.PTCP’ expresses general indirect evidentiality and the adverb *очевидно* ‘apparently’ specifies it into inferential evidentiality and more specifically into an inference based on visual perception.

- (13) *Обсъдихме впечатления-та от състезание-то и от други
discuss.AOR.1PL impressions-DEF from contest-DEF and from other
неща случващи се наоколо в един фургон, на студени безалкохолни
things taking_place around in one van at cold non-alcoholic
напитки. Charlie (който очевидно имал тежка вечер)
drinks Charlie who apparently have.PST.PTCP heavy evening
прецени, че просто нещата няма така лесно да
decide.AOR.3SG that simply things NEG.FUT so easily INF.COMP
се избистрят в глава-та му и бе принуден да си
become_clear.3PL in head-DEF his and be.AOR.3SG forced to REFL
вземе бира.
take.3SG beer*

‘We discussed our impressions of the contest and from other things going on while sitting in the van with our soft drinks. Charlie (who obviously

had had a heavy night) decided that the things in his head wouldn't become clear that simply and was forced to get himself a beer.
(<http://clubf1.net/forums/index.php?showtopic=3797&pid=83133&mode=threaded&start=>)

A native speaker of Bulgarian may have doubts in the acceptability of the sentence containing the grammatical evidential form and the evidential adverb in (13). It may seem elliptic, in which case the omitted element would be the form *беше* 'be.IMPF.3SG' occurring between the two forms in bold. Adding this form, we would have a free collocation of the word *очевидно* 'apparently' and the regular form of pluperfect indicative *беше имал* 'be.IMPF.3SG have.PST.PTCP'. One may speculate that the example in (13) is nothing but a case of auxiliary ellipse caused by carelessness. Nevertheless, similar occurrences are also attested in edited texts. An example is found in a historical survey of the uprising of the Bulgarian Paulicans in the eleventh century; cf. (14).

- (14) *Както разказва византийска-та историчка Анна Комнина, през*
 as narrate.3SG Byzantine-DEF historian Anna Komnene during
1084 г. (начало-то на въстание-то) Травъл бил вече
 1084 year beginning-DEF of uprising-DEF Traväl be.PST.PTCP already
шеста година личен и доверен 'слуга' (т.е. един от близки-те
 sixth year personal and confidential servant i.e. one of close-DEF
адютанти или оръженосци) на нейния баща, прославени-ят
 adjutants or armour-bearers of her father celebrated-DEF
пълководец и император Алексий I Комнин (1081–1118).
 military_commander and emperor Alexios I Komnenos 1081–1118
Като пресметнем време-то на тази служба, то пловдивският
 as calculate-1PL time-DEF of this position then Plovdiv.ATTR
павликянин очевидно бил сред най-верни-те хора на
 paulican apparently be.PST.PTCP among most_faithful-DEF people of
Алексий I Комнин още от 1078–1079 г. и е
 Alexios I Komnenos ever since 1078–1079 year and be.3SG
преживял заедно със своя 'патрон' редица победи и
 experience.PST.PTCP together with his patron series_of victories and
триумфи, както и немалко тежки изпитания.
 triumphs as_well_as and not_a_few hard probations
 'As is documented by the Byzantine historian Anna Komnene, in the year 1084 (in the beginning of the uprising) Traväl had already for six years been a trusted personal 'servant' (i.e. one of the close adjutants and armour-bearers) of her father, the celebrated military commander and emperor Alexios I Komnenos (1081–1118). If we add up the time of his service, then the Plovdiv-born Paulican had apparently been one of the

most trusted people of Alexios I Komnenos ever since the years 1078–1079 and had experienced together with his patron a number of victories as well as many hardships.’
(http://liternet.bg/publish13/p_pavlov/buntari/travyl.htm)

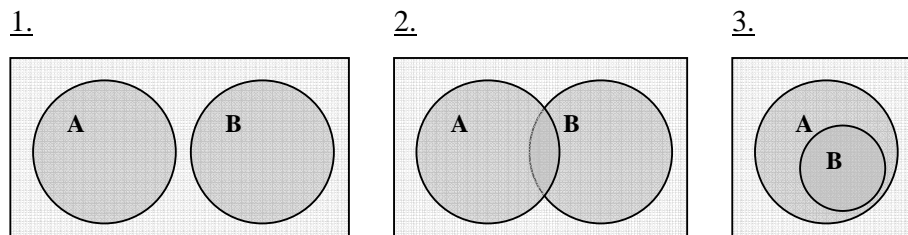
As already noted, in such occurrences the evidential word specifies/disambiguates the more general evidential term encoded by the grammatical evidential. This effect is possible only in Bulgarian, because the Bulgarian indirect evidential is such that it can be specified into narrower terms by the lexical items listed in Table 1. The Estonian evidential term is narrowly reported and therefore co-occurrences with inferential adverbs like those in (13) and (14) cannot have concord readings, but only readings where the items in the sequence are in scopal dependency, cf. (15)

- (15) *Ta ole-vat nähtavasti töö-l.*
s/he be-EV apparently work-ADE
‘It is said that s/he is apparently at work.’

This granted, we can now try to identify the licensing conditions of what we called ‘concord (or holistic) reading’. As we are dealing with overlapping domains, this can be done with the help of the tool from the set theory known as Venn diagrams. Before doing that, we will take for granted, that evidentiality and epistemic modality imply each other. Any explicit marking of the source of information correlates with the degree of the speaker’s commitment to the truth of the proposition, and vice versa, the degree of commitment correlates with the temporal or spatial distance between the state-of-affairs referred in the proposition and the participant which functions as a deictic center of the utterance.⁷ Consider now the types of intersection illustrated in Figure 1. We have only two sets, indicated respectively with A for the meaning domain covered by the grammatical evidential, and B for the meaning domain covered by the epistemic or evidential word. We will be interested here only in cases where the grammatical evidential and the epistemic (or evidential) lexeme co-occur and share the same semantic scope. Bearing this in mind we can identify the following types of intersections.

Figure 1. *Intersections of the meanings of the grammatical evidential and the epistemic (or evidential) word*

⁷ This entails that evidentiality is a deictic notion, a position recently defended by de Haan (2005) that I agree with.



In the first diagram, there is no overlap in the meanings of the grammatical and the lexical item. In such cases we expect that their combination is accessed always analytically as a free collocation of two independent qualifications of the propositional content. This corresponds to our type III.

In the second diagram, the intersection is not an empty set, i.e. there is an overlap between the meanings of the two elements. In this case, their combination can be accessed holistically as subtype IV(a). The intersection comprises at least the notional domain of inferentiality, but does not seem to be restricted to it. As a result, the two elements are comprehended as somewhat redundant. In certain functionalist studies of modality (see Lyons 1977, 807-808; Coates 1983, 45-46, 137-138; Palmer 2001, 35), similar cases are labelled ‘harmonic combinations’ of two modals while in the formally orientated studies this phenomenon has been recently labelled a ‘modal concord’ (Geurts & Huitink 2006), drawing on the parallel with the phenomenon called ‘negative concord’ where two overt negators yield a single operator. Halliday noted already in 1970 that in such cases the co-occurring modals reinforce each other (Halliday 1970, 331). In our case, the ‘reinforced’ meanings are those meanings that are confined to the overlapping area in the diagram.

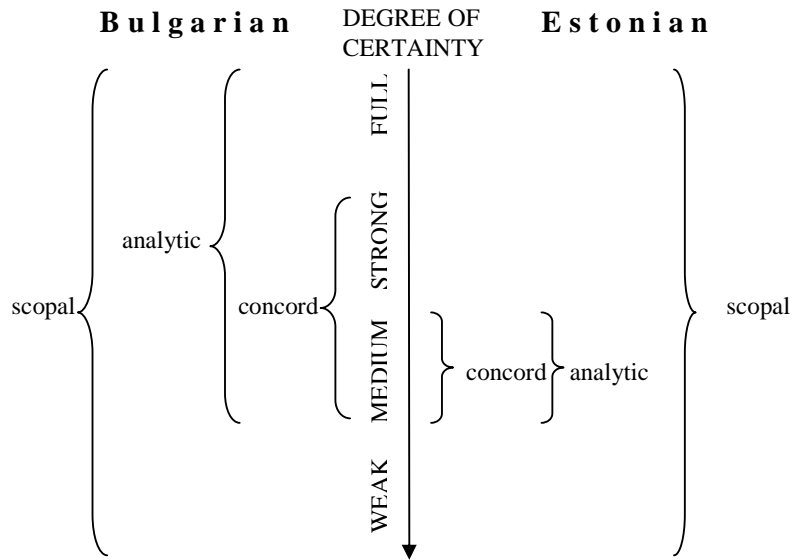
In the third diagram, one of the sets is confined within the other one. As already said, such cases can be accounted for in terms of specification or disambiguation. The item whose functional range is designated by the set A can be said to be underspecified, and the item whose functional range corresponds to the set B specifies it. This is our subtype IV (b), which as we saw, is attested only in Bulgarian. As the Estonian evidential grammeme encodes reported evidence, combining it with an inferential word would yield either scopal reading, i.e. reading in which either the inference is in scope of the report or the report is in the scope of the inference, or same-scope, but ‘analytic’ reading. If, on the other hand, the Estonian evidential is combined with a particle or an adverb expressing reported evidentiality, the meaning areas covered by these items would just coincide and bring about redundancy.

5.2. Medium certainty as a licenser of the concord reading

Let us now elaborate on the question of how the semantics of the particular epistemic and/or evidential words correlate with the different readings. In particular, we are interested to discover which items of those listed in Table 1 engage with the evidentials in combinations that can be accessed holistically. It seems that such readings are licensed only in combinations where the grammatical marker of evidentiality co-occurs with a lexeme expressing or implying a middle degree of certainty (or commitment) that the facts referred to by the proposition obtain. An apparent explanation for this tendency is that the evidential grammemes of Bulgarian and Estonian imply middle rather than full or low certainty. Using an expression of indirect evidentiality usually implies that the speaker does not want to commit himself with an opinion as to whether the reported state of affairs obtains or not. Therefore in those combinations where the grammatical evidential and the lexical expression of middle certainty share the same scope, the latter are perceived as somehow superfluous. Due to the meaning intersection, the analytic reading is usually not selected and the only remaining way is that of convergence of the two items into a single unit, where the epistemic stance which can be paraphrased as ‘I am not absolutely sure in p ’ or ‘I do not fully commit myself to p ’ is reinforced.

With regard to the combinations with words expressing full or weak certainty, our evidence is that the first can receive either scopal (types I and II) or – only in Bulgarian – analytic interpretation (type III), whereas the latter seem to be restricted to only scopal interpretation. The reason for this is that words expressing low certainty (or commitment) can be considered as implicit negators: qualifications like ‘hardly p ’ normally imply ‘not p ’. As a result such combinations yield clearly two distinct operators, one of which (evidentiality) is not truth-functional whereas the other one (negation) is truth-functional, and hence the combination cannot be accessed holistically. These observations are illustrated in Figure 2 which follows the conventional distinction between four degrees of certainty used in Table 1.

Figure 2. Correlation between the type of interaction and the degree of certainty adduced by the epistemic (or evidential) word in Bulgarian and Estonian.



The distribution in the figure leads to a number of repercussions for the licensing conditions of the different readings. First, it is clear that the scopal interpretation is possible regardless of the degree of certainty adduced by the lexical word. In both Bulgarian and Estonian there were instantiations of scopal dependency between the grammatical evidential and the epistemic (or evidential word) all along the spectrum of certainty adduced by the latter.

With regard to the difference between the analytic and concord reading, it is not easy to decide between them without a thorough examination of the relevant context. The area on the scale where the analytic reading is available is larger or equivalent to the area permitting concord interpretation. This is a data-driven generalization, which can also be reached deductively. If we assume that any free collocation of two independent qualificational expressions is prior to cases where these expressions are felt as parts of a single semantic unit, it follows that the analytic reading is licensed at least in the same environments where the holistic reading is licensed. In Bulgarian, cases where the grammatical evidential co-occurs with an epistemic or evidential word inducing full degree of certainty could only have scopal or analytic reading, whereas the concord reading is reserved for co-occurrences with words inducing medium-to-strong certainty. The instantiations of concord reading with words inducing strong certainty are rarer and more specific than those with words expressing medium certainty. Strong certainty items can only yield the type of concord reading that we characterized as evidential specification (recall examples (13) and (14)).

Compared to Bulgarian, Estonian seems to be more restrictive with regard to the availability of the analytic and the concord interpretations. Combinations with words inducing strong certainty always receive scopal interpretation. For example, the Estonian sentence in (16) where the grammatical evidential is combined with an adverb expressing strong certainty can only receive scopal interpretation:

- (16) *Ta ole-vat tõenäoliselt töö-l.*
 s/he be-EV probably work-ADE
 'It is said that s/he is probably at work.'
 *'It is said and I think it is probable that s/he is at work.'

The difference between Bulgarian and Estonian in the availability of the different readings mirrors the functional range of the respective grammatical markers of evidentiality. The Bulgarian evidential grammeme has broader semantics and so the array of epistemic words with which it can form a 'harmonic combination' is larger than in Estonian. In Section 7, we will return to this regularity and look for an operational device that can be used to detect the precise semantic range of any evidential grammeme in any language.

5.3. Non-specific referent as a licenser of the concord (or holistic) reading

We noted in Section 5.1. that the concord interpretation is not restricted to cases where the grammatical evidential receives an inferential specification, but also to cases where it has hearsay interpretation. The analysis of the Bulgarian and Estonian data pinpoints a specific condition that triggers the concord reading in such cases of reported evidentiality. It relates to the identity of the referent of the report. The grammatical evidential may be used in a context which specifies the individual from whom the speaker has acquired the information concerning *p* or in a context which does not specify the source of the report, but rather indicates that the speaker has acquired the information about *p* from different sources at different times or that determining the referent of the report is irrelevant in the given speech situation. In the first case we can talk about a specific referent of the evidential expression, in the second about non-specific referent of the evidential expression.

In Bulgarian and Estonian, the concord reading is found in contexts with non-specific referent. Consider the following example from Bulgarian. It comes from an Internet discussion concerning an earthquake which took place the day before. The earthquake was light; it was felt only by some people in certain districts of Eastern Sofia, where the protagonist of the story lives.

- (17) *Аз пък си помислих, че съсед-а Тошо се е*

I but REFL.DAT think.AOR.1SG that neighbour-DEF Tošo REFL be.3SG
изтърсил по гъз. И нищо чудно, нали епицентър-а
 tumble_down.PST.PTCP on ass and nothing surprising isn't epicentre-DEF
май бил в Младост ...
 probably≈as it seems be.PST.PTCP in Mladost
 'And I thought that my neighbour Tošo fell on his backside. It doesn't
 surprise me, wasn't the epicentre supposed to be in Mladost (a residential
 area in Sofia; P.K.).
 (<http://muro.biz/old/?p=253>)

It seems that the author of (17) has gathered the information about the epicentre of the earthquake from one or several sources, none of which is fully reliable. The referent of the evidential qualification is not contextually specified, which in turn triggers an interpretation in which the hearer cannot identify any scopal relation between the two elements in bold. Considering that these elements have partly overlapping meanings, the speaker is left with the possibility for interpreting them in terms of redundancy and reinforcement, in which case the concord interpretation is activated. These stipulations are easy to check. If we insert into the second sentence of (17) a clause referring to a specific source of information about the epicentre then the scopal interpretation [EV [EP [p]]] arises leaving no space for any other interpretation. In other words, if we added a clause like 'according to my uncle' to (17) the word *май* automatically receives a narrow scope interpretation with respect to the expression of evidentiality.

This observation has important consequences. It seems that utterances with non-specific referent of the report involve an inferential step by the speaker. This means that the evidential qualification in sentences like (17) can be paraphrased as 'From what I have heard, I infer that *p*' or 'I guess from hearsay that *p*'. In fact, it is this inferential step which binds the reported evidentiality and the degree of certainty in a unified expression. It is interesting that Estonian – a language with a grammaticalized term of reported evidentiality, also allows such inferential interpretations in contexts with non-specific referent. Witness (18), where the story is about the Eurovision song contest.

(18) *Aga sel aastal oli siiski üllatavalt hea. Tavapärase*
 but this year be.PST.3SG however surprisingly good usual
saastalaadung loomulikult ka – lood, mis mitte millegagi
 scum_load naturally too songs which NEG.ADV anything.ENCL
silma ei paista ja mis pane-vad mõtlema, et kui sellised
 eye.INE NEG shine and which put-3PL think.SUP that if such
lood on saa-nud 10 parema hulka, siis milline see
 numbers be.3SG get-PST.PTCP 10 best.GEN set.INE then what_kind_of this
üldine tase veel oli, mis ka üllatavalt kõrge vist

common level again be.PST.3SG which also surprisingly high perhaps

ole-vat ol-nud.

be-EV be-PST.PTCP

‘But it was surprisingly good this year. The ordinary crap, too, of course – faceless songs that make you think that if such songs are among the ten best, then what might the general level have been, which is also supposed to have been surprisingly high.’

(<http://www.allstarz.ee/foorum/viewthread.php?fid=12&tid=629&action=printable>)

The source of information about the quality of this year’s Eurovision is undetermined and probably of dubious reliability. The underspecification of the information source together with the adverb expressing less than full certainty leads to an inferential reading of the sequence in bold. If the information about a particular event is obtained through sources of different reliability, the speaker synthesizes it in a similar way as in a typical case of inferentiality where he gathers pieces of physical evidence for *p*.

These facts lead to two important repercussions. First, they indicate that the licensing conditions we outlined presuppose each other. In other words, it seems that the syntagm of the grammatical evidential and the word expressing medium certainty is assigned concord reading only in case the referent of the report is not specified, and conversely, a non-specific referent triggers concord interpretation only in case the grammatical marker is combined with a word expressing medium certainty.

The second and more important repercussion is that contrary to the stipulation made in Section 5.1, the instantiations of concord reading may still be reduced to the functional notion of inferentiality. Even if second-hand evidence is involved, this evidence is filtered out through what we called an inferential step.

6. Further evidence for the ‘concord’ hypothesis

The reader may have noticed that I have so far not presented any empirical evidence showing that what was called the concord (or holistic) reading really exists. Speaking about the holistic reading presupposes at least some degree of formal bondedness, i.e. an increase of the intimacy with which the two collocating elements are connected to each other (see Lehmann 2002b, 131-139). In our case, however, there are no direct signs whatsoever of increased bondedness, and therefore we have to admit that the ‘holistic’-claim belongs to the realm of native linguistic intuitions that cannot be easily verified. The ‘concord’-claim, on the other hand, is a weaker version of the ‘holistic’-claim

and therefore seems more suitable for the description of cases where a certain amount of semantic but not necessarily formal coalescence is at play.

One sign for the increase of the intimacy between the two elements is provided by their collocational frequencies. There is evidence indicating that the Bulgarian and Estonian grammatical evidentials show preferences with respect to particular lexical items. Table 2 presents some (preliminary) statistical data for the existence of such preferences. The first column of the table indicates the number of the most frequent collocations of the grammatical marker of evidentiality and epistemic or evidential word. In Bulgarian, the most frequent collocation is ‘evidential grammeme + *май*’. This means that the number in the first cell indicates the frequency of the cases where the word *май* ‘probably, it seems’ immediately follows or precedes the auxiliary-less past participle. In Estonian, the most frequent collocation is ‘evidential grammeme + *vist*’. Thus, the number in the second cell of the first column indicates cases where the word *vist* ‘perhaps, possibly’ immediately follows or precedes the evidential *vat*-form. The second column contains the respective numbers for the second most frequent collocations; in Bulgarian this is *вероятно* ‘most likely’ preceding or following the auxiliary-less past participle, and in Estonian *ehk* ‘maybe, perhaps’ preceding or following the evidential *vat*-form.

Table 2. Comparison of the frequencies of the two most common collocations of evidential grammeme and epistemic (or evidential) word in Bulgarian and Estonian

	the most frequent collocation	the second most frequent collocation
Bulgarian	(ev. grammeme + <i>май</i>) 183	(ev. grammeme + <i>вероятно</i>) 82
Estonian	(ev. grammeme + <i>vist</i>) 161	(ev. grammeme + <i>ehk</i>) 14

The distribution in the table is significant (chi-square=31.19425, p=.000)⁸ showing that the lexical items *май* ‘probably, it seems’ in Bulgarian and *vist* ‘perhaps, possibly’ in Estonian are much more preferable in collocation with the relevant grammatical markers of evidentiality than any of the remaining lexical items. This, of course, applies only in case we assume that the overall frequency of these lexical items is similar. A Google search, which shows only approximate numbers, confirms that this assumption is more or less correct. The search for *май* yields approximately 1 680 000 Google hits and the search for *вероятно* approximately 1 420 000 hits. In Estonian, *vist* shows approximately 1 740 000 hits, and *ehk* approximately 1 500 000 hits. Thus, despite the

⁸ The calculation tool uses Yates’ correction for continuity, which reduces the magnitude of the difference between expected and observed frequencies by 0.5.

similarity in the token frequencies of the Bulgarian *май* and *вероятно*, the first occurs over twice more often than the second in collocation with the grammatical evidential. In Estonian, this tendency is even more striking. Despite the similarity in token frequency of *vist* and *ehk*, the first occurs over eleven times more frequently in collocation with the grammatical gram than the second. The only conclusion that forces itself upon us is that the grammatical evidential is sensitive to a particular word, which expresses medium certainty and thus generates redundancy.

Is it interesting that native speakers of Bulgarian and Estonian often consider sentences containing combinations of the grammatical marker of evidentiality and a word expressing middle certainty somewhat overburdened and redundant if such sentences are out of the context, but if they are surrounded by the original context their acceptability to the speakers increases substantially, and the characterization of ‘redundancy’ is replaced with something like ‘motivated reinforcement’. This granted we can draw a parallel with the reinforcement occurring within the paradigms of grammatical evidentiality. The paradigm of the Bulgarian evidential is composed by aorist or imperfect past participles which can occur with or without the past participle of the auxiliary verb. The past participle of the auxiliary usually denotes criticism and distrust on behalf of the speaker (see Demina 1959, 323; GBE II, 360). Therefore some studies (such as Nitsolova 2006) postulate a separate paradigm of dubitative forms which is to be distinguished from the paradigm of the ‘renarrative’ forms. Compare the evidential renarrative form in (19a) with the evidential dubitative in (19b):

- (19) a. *мой казал*
 he say.PST.PTCP
 ‘Reportedly, he said ...’
- b. *мой бил казал*
 he be.PST.PTCP say.PST.PTCP
 ‘Reportedly (but I doubt it), he said ...’

Due to its function to increase the distance between the speaker and the event referred to by the proposition, the participle of the auxiliary can be characterized here as a ‘distance particle’, a term originally used by Johanson (see Johanson 1998, 146). Such distance particles enhance the epistemic component in meaning of the compound.

Consider now an analogous case in Estonian. Besides the dedicated marker of evidentiality *-vat*, Estonian has the multifunctional modal verb *pidama* (with premodal meaning ‘to hold’) which in addition to dynamic, deontic and epistemic necessity is used as a marker of evidentiality. The dedicated marker *-vat* is often suffixed to this verb, which enhances the sense of doubt; witness

(20) adopted from Kehayov (2002, 136). In (20a), where the suffix *-vat* is the only marker of evidentiality, we are dealing with a typical case of reported evidentiality, which may, but need not, imply a sense of doubt. In (20b) *-vat* is suffixed to the verb *pidama* and the cooperative meaning of the whole verb form is that of report accompanied by a stronger sense of doubt.

(20) a. *Ta ole-vat Tallinna-s.*
 s/he be-EV Tallinn-INE
 ‘Reportedly, s/he is in Tallinn’

b. *Ta pida-vat Tallinna-s olema.*
 s/he must-EV Tallinn-INE be-SUP
 ‘Reportedly (but I do not subscribe to this view), s/he is in Tallinn.’

Now, what is common between the cases in (19) and (20) and the combinations of grammatical and lexical items with concord interpretation is the semantic effect of reinforcement. The difference, on the other hand, between these cases is that in (19) and (20) we are dealing with a grammaticalized means of reinforcement whereas in the combinations of grammatical and lexical items with concord reading the relationship between the two elements is not grammaticalized.

It was stressed on several occasions that there is an implicational relation between the meanings of evidentiality and epistemicity as the cognitive remoteness of the source of information correlates with the degree of certainty. Despite this, only one of these meanings is considered a focal meaning (cf. Wiemer 2006, who draws a distinction between focal and associated meanings in his analysis of Polish lexical evidentials). Therefore, we can claim that in a complex sequence of two items with similar meanings, a certain meaning (evidential or epistemic) can be focalized both by grammatical or non-grammatical structural means. The only reason why the concord interpretation does not seem so obvious in cases where grammatical and lexical items are combined is that it is not overtly marked in the morphosyntax of the language.

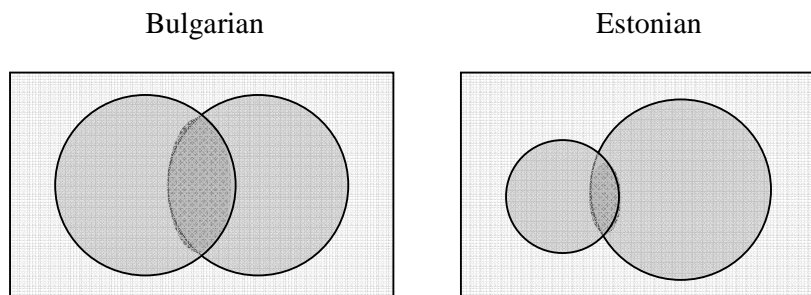
7. Some consequences of general relevance

The effect of reinforcement can be compared with cases of reduplication where the property denoted by the repeated word is enhanced. If someone says *good good dog* it normally means that the dog is very good, i.e. the concept of ‘goodness’ is reinforced. We saw that certain combinations of ‘evidential’ and ‘epistemic’ yield an increase of doubt in the truth of the proposition, in which case we may say that the concept of ‘doubt’ is reinforced. Although this parallel might seem speculative, both examples involve reinforcement of a term. The

very existence of such effect leads us again to the question whether we should look for an umbrella term for evidentiality and epistemicity. Such an umbrella term would be a narrowly defined functional category which encompasses only two subcategories: the one of evidentiality and the one of epistemicity. In such a way, the concord analysis provides another piece of evidence for the conceptual affinity of evidentiality and epistemic modality. Bulgarian and Estonian grammatical evidentiality systems are among the first discovered and best described evidentiality systems in the world. Moreover, due to the work of Jakobson (Jakobson 1971), the Bulgarian evidentiality system has played an important role in establishing the cross-linguistic category of evidentiality. It is thus beyond doubt that the cognitive basis that warranted an establishment of a new a grammatical category distinct from modality in these languages is firm enough. Nevertheless, the surprising number of cases where the grammatical evidential and an epistemic word ‘reinforce’ a common meaning component urge us to reconsider whether even these languages do not warrant an umbrella term for the notions of evidentiality and epistemicity from which this meaning component can be abstracted.

The second important consequence emerges as we look at the size of the area of overlap of the linguistic elements which are said to be evidential and epistemic. We know from the previous research that Bulgarian encodes the broader term of ‘indirect’ evidentiality while Estonian encodes the narrower term of ‘reported’ evidentiality. This in turn leads us to the idea that the functional overlap between the grammatical evidential and the domain of epistemicity is larger in Bulgarian than in Estonian. This idea is articulated in Plungian’s notion of ‘modalized’ evidentiality system used for the description of the Balkan systems (Plungian 2001). Consider Figure 3, which illustrates the size of the overlapping area. In the figure we have two diagrams with overlapping rings. The left ring stands for the functional domain covered by the relevant evidential grammeme, whereas the right one stands for the domain of epistemicity.

Figure 3. *The size of the epistemic component in the functions of the evidential grammemes*



These diagrams portray the situation not only in Bulgarian and Estonian, but in any two languages with different semantic ranges of their grammatical evidentials.

Why is the size of the overlapping area important? First, in languages with minor overlap between the functions of the grammatical evidential and the domain of epistemicity we can expect co-occurrences with epistemic items to be more common than in languages with more significant overlap. The smaller is the overlapping area, the lesser is the chance for a functional ‘clash’ and redundancy. By virtue of the economy principle, the use of expressions with overlapping meanings is to be avoided.

On the other hand, in languages with greater overlap between the functions of the grammatical evidential and the domain of epistemicity concord interpretations are more likely to occur than in languages with minor overlap. If the area of overlap is larger, the relative frequency of the instantiations of concord reading – i.e. their percentage from the total of the attested co-occurrences with epistemic items – is expected to be higher. This is because a larger region of the semantic space is encoded either by more linguistic expressions than a smaller region or by the same number of linguistic expressions with more general meanings. Both possibilities have frequential effect. In our case, the chance that the overlapping area is encoded linguistically is greater in Bulgarian than in Estonian.

Unfortunately, we cannot test these deductively achieved claims as we do not have comparable corpora for Estonian and Bulgarian. Nonetheless, these generalizations are significant as they seem to hold for any two languages with grammatical evidentials.

The evidence from Bulgarian and Estonian that we have looked at so far can be helpful if we want to elaborate a waterproof method with which we can identify the exact functional range of any grammatical evidential in any language. We will take for granted that any two markers with cognitively adjacent and/or partly overlapping meanings are subjected to specific restrictions as for their co-occurrence in the same sentence. Furthermore, we will adopt the assumption that if the co-occurrence of these two markers in a single sentence is accepted, there is still another set of restrictions which govern the semantic effects induced by such co-occurrence. Suppose we study the functions of a certain marker in certain language. If we find out what the relevant restrictions are we would be able to determine precisely the functional boundaries of this marker and to better locate it in semantic space. Say we study the functions of certain grammatical marker of evidentiality. Combining this marker with different items expressing epistemic modality helps to determine its

functional range. In light of the above evidence, the following aspects should be taken into consideration:

- 1) Does the combination of the grammatical evidential with epistemic items generate concord readings?
- 2) If it does, with which particular epistemic items does this happen?
- 3) What is the position of these epistemic items on the scale of certainty?
- 4) Are there any epistemic items which particularly often enter into a concord relation with the grammatical evidential?

The fieldworker's guides advanced in Kozintseva (1994) and Aikhenvald (2004, 385-390) consider the compatibility of evidential and modal markers a relevant criterion for determining the type of evidential coding. The questions above could be considered as a supplement to these guides. By answering these four questions we could test the functional boundaries of the grammatical evidential of any random language. The last question is crucial as for whether a particular combination of evidential and epistemic item is in process of becoming conventionalized. The concord readings of the collocations of Bulgarian and Estonian grammatical evidentials with the items *maï* 'probably, it seems' and *vist* 'perhaps, possibly', respectively, form the majority of cases where the collocation of grammatical evidential and epistemic or evidential word has concord reading in these languages.⁹ Moreover, as we saw in Table 2, these collocations make up a considerable share of the total amount of attested co-occurrences of grammatical evidential and epistemic or evidential word. It seems therefore that we are dealing with sensitivity between the grammatical evidential and a certain epistemic word, which might reflect an early stage of conventionalization of such complex expressions. An advanced stage of such conventionalization, on the other hand, would be a situation where their co-occurrence has become obligatory. Boye reports for a good number of cases from different languages where two epistemic items or constructions with overlapping meaning co-occur obligatorily in a unified qualificational expression (Boye 2006, 78-80, 189-191) and, following the postulates of the grammaticalization theory, we could assume that such expressions originate in non-obligatory syntagmatic patterns.

As a final point, it should be noted that the co-occurrences of grammatical and lexical expressions that we studied are surprisingly common compared to the co-occurrences of two grammatical or two lexical expressions of the relevant categories. We saw in Section 2 that there are a number of studies concerned with combinations of lexical or grammatical markers of epistemicity and/or

⁹ I will refrain from presenting exact frequencies, because many of the examples of concord reading might be considered ambiguous, also allowing for other readings and which may therefore be considered controversial among speakers. It is clear, however, that they form the majority of all cases of concord reading.

evidentiality. We focused on the third possibility, namely on co-occurrences of grammatical and lexical marker. This choice turned out to be successful as we easily managed to gather a considerable body of examples. In contrast, both in Bulgarian and Estonian, combinations of grammatical evidentials with ‘epistemic’ moods, such as the conditional mood, are ungrammatical.¹⁰ The compatibility of two lexical means of evidentiality and epistemicity in Bulgarian and Estonian has not yet been studied, but the intuition is that many of the possible combinations are not acceptable. It seems therefore that if evidential and epistemic modifiers are combined at different levels of linguistic expression (lexicon and morphology, for example), they are more acceptable than if they are combined at the same level of linguistic expression. This pattern might be due to some general principle which blocks redundancies at the same level of grammar, but allows them at different levels.

8. Conclusions

In this contribution, I outlined the types of interaction between grammatical markers of evidentiality and lexical markers of epistemicity and evidentiality. These types were stipulated based only on Bulgarian and Estonian data, but were assumed to be cross-linguistically pertinent. The following four types of interactions were distinguished:

- 1) The grammatical marker of evidentiality outscopes the epistemic (or evidential) word.
- 2) The epistemic (or evidential) word outscopes the grammatical marker of evidentiality.
- 3) The two items are not in scopal dependency, but represent two independent qualifications of the status of the proposition;
- 4) The two items are understood as parts of a single entity, which ‘reinforces’ a common meaning component.

This fourth type was referred to as ‘concord (or holistic) reading’ of the sequence of the grammatical marker of evidentiality and an epistemic (or evidential) word. The domain of medium certainty as well as the absence of specific referent of the report were shown to trigger the concord reading.

The central claim of this study was that the possibility for a concord reading of such sequences should be seriously considered in the description of the evidential and/or modal system of any language. It was argued that if one wants to determine the array of meanings expressed by a given grammatical evidential,

¹⁰ Except from the short conditional forms in Bulgarian, which permit evidential marking (see GBE II, 370 for examples), but which are obsolete by now. These evidential conditional forms were in many cases homonymic with the relevant imperfective past participles and therefore do not qualify as adequate examples.

the possibility for concord readings, the regularity of these readings and the range of the specific semantic effects should be explanatory as for the exact functions of this grammeme.

Abbreviations

ADE – adessive case, ADV – adverb, AOR – aorist, ATTR – attributive adjective, COM – comitative case, DAT – dative case, DEF – definite article, ENCL – enclitic, EP – epistemic: a conventional term in the descriptive grammar, _{EP} – notionally epistemic, EV – evidential: a conventional term in the descriptive grammar, _{EV} – notionally evidential, FUT – future tense, GEN – genitive case, HOR – hortative, ILL – illative case, IMP – imperative, IMPF – imperfect (tense), IMPS – impersonal form, INE – inessive case, INF.COMP – infinitival complement, INTERJ – interjection, NEG – negative, *p* – proposition, PASS – passive, PL – plural, PRON – pronoun, PST – past tense, PTCP – participle, Q – question marker, REFL – reflexive, SG – singular, SUP – supine, 1 – first person, 2 – second person, 3 – third person

References

- Aikhenvald, A. Y. 2003a. "Evidentiality in typological perspective", Aikhenvald, A. Y., Dixon, R. M. W. (eds.), *Studies in Evidentiality*, Amsterdam: John Benjamins, 1-31.
- Aikhenvald, A. Y. 2004. *Evidentiality*, Oxford: Oxford University Press.
- Akatsuka, N. 1985. "Conditionals and the epistemic scale", *Language* 61, 1985/3, 625-639.
- Alexiadou, A. 1997. *Adverb Placement. A Case Study in Anty-Symmetric Syntax*, Amsterdam, Philadelphia: John Benjamins.
- van der Auwera, J., Plungian, V. 1998. "Modality's semantic map", *Linguistic Typology* 2, 1998/1, 79-124.
- Boye, K. 2006. *Epistemic meaning: a cross-linguistic study. Ph.D. dissertation.* Department of English, Germanic and Romance Studies, University of Copenhagen.
- Brinton, L. J., Traugott, E. C. 2005. *Lexicalization and Language Change*, Cambridge: Cambridge University Press.
- Bybee, J. L. 1985. *Morphology. A Study of the Relation between Meaning and Form.* Amsterdam: John Benjamins.
- Chafe, W. 1986. "Evidentiality in English Conversation and Academic Writing", Chafe, W., Nichols, J. (eds.), *Evidentiality: The Linguistic Coding of Epistemology*, Norwood: Ablex, 261-271.
- Cinque, G. 1999. *Adverbs and Functional Heads. A Cross-Linguistic Perspective*, New York, Oxford: Oxford University Press.
- Cinque, G. 2006. *Restructuring and Functional Heads: The Cartography of Syntactic Structures*, 4, New York: Oxford University Press.

- Demina = Демина, Е. И. 1959. "Пересказывательные формы в современном болгарском литературном языке", Бернштейн, С. Б., (ред.), *Вопросы грамматики болгарского литературного языка*, Москва, 313-378.
- Dendale, P., Tasmowski, L. 2001. "Introduction: Evidentiality and related notions", *Journal of Pragmatics* 33, 2001/3, 339-348.
- EKG II = *Eesti keele grammatika II. Süntaks. Lisa: kiri*, Ereht, M., Kasik, R., Metslang, H., Rajandi, H., Ross, K., Saari, H., Tael, K., Vare, S. (eds.), Eesti Teaduste Akadeemia Keele ja Kirjanduse Instituut, Tallinn, 1993.
- Ernst, Th. 2006. *The Syntax of Adjuncts*, Cambridge: Cambridge University Press.
- GBE II = *Грамматика на съвременния български книжовен език. Том 2/ Морфология*, Тилков, Д., Стоянов, С., Попов, К. (ред.), Българска Академия на Науките, София 1983.
- Geurts, B., Huitink, J. 2006. "Modal Concord", Dekker, P., Zeijlstra, H. (eds.), *Proceedings of the ESSLI 06 Workshop Concord Phenomena at the Syntax-Semantics Interface, Málaga*, 15-20.
- Givón, T. 1982. "Evidentiality and epistemic space", *Studies in Language* 6, 1982/1, 23-49.
- De Haan, F. 2005. "Encoding speaker perspective: Evidentials", Frajzyngier, Z., Hodges, A., Rood, D. S. (eds.), *Linguistic Diversity and Language Theories*. Amsterdam: John Benjamins, 379-397.
- Halliday, M. A. K. 1970. "Functional diversity in language as seen from a consideration of mood and modality in English", *Foundations of Language* 6, 1970/3, 322-361.
- Hengeveld, K. 1989. "Layers and operators in functional grammar." *Journal of Linguistics* 25, 1989/1, 127-157.
- Hopper, P. J., Traugott, E. C. 2003. *Grammaticalization*, Cambridge: Cambridge University Press.
- Ifantidou, E. 2001. *Evidentials and Relevance*, Amsterdam: John Benjamins.
- Jakobson, R. 1971: "Shifters, Verbal Categories, and the Russian Verb", Jakobson, R. (ed.), *Selected writings, Vol. 2: Word and Language*, The Hague: Mouton, 131-147.
- Johanson, L. 1998. "Zum Kontakteinfluß türkischer Indirektive", Demir, N., Taube, E. (eds.), *Turkologie heute – Tradition und Perspektive. Materialien der dritten Deutschen Turkologen-Konferenz, Leipzig, 4.-7. Oktober 1994*, Wiesbaden: Harrassowitz, 141–150.
- Kehayov, P. 2002. "Typology of Grammaticalized Evidentiality in Bulgarian and Estonian", *Linguistica Uralica* 2002/2, 126-144.
- Kiefer, F. 1994. "Modality", Asher, R. E. (ed.), *The Encyclopaedia of language and linguistics*, Oxford: Pergamon Press, 2515-2520.

- Kozintseva = Козинцева, Н. А. 1994. "Категория эвиденциальности (проблемы типологического анализа)", *Вопросы языкознания* 1994/3, 92-104.
- Lehmann, Chr. 2002a. *Thoughts on grammaticalization*, Arbeitspapiere des Seminars für Sprachwissenschaft der Universität Erfurt 9.
- Lehmann, Chr. 2002b. "New reflections on grammaticalization and lexicalization", Wischer, I., Diewald, G. (eds.), *New reflections on grammaticalization*, Amsterdam, Philadelphia: John Benjamins, 1-18.
- Lyons, J. 1977. *Semantics. Vol. 2*, Cambridge: Cambridge University Press.
- Макаревич = Макаревич, М. М. "Связь лексических и грамматических показателей эвиденциальности в болгарском языке", this volume.
- Mushin, I. 2001. *Evidentiality and Epistemological Stance. Narrative Retelling*, Amsterdam: John Benjamins.
- Nitsolova = Ницолова, Р. 2006. "Взаимодействие эвиденциальности и адмиративности с категориями времени и лица глагола в болгарском языке", *Вопросы языкознания* 2006/4, 27-45.
- Nuyts, J. 2001. *Epistemic modality, language and conceptualization. A cognitive-pragmatic perspective*, Amsterdam: John Benjamins.
- Nuyts, J. (forthcoming). "The 'one-commitment-per-clause' principle and the cognitive status of qualificational categories", *Linguistics*.
- Palmer, F. 2001. *Mood and Modality*. Cambridge: Cambridge University Press.
- Plungian, V. 2001. "The Place of Evidentiality within the Universal Grammatical Space", *Journal of Pragmatics* 33, 2001/3, 349-357.
- Quine, W. V. O. 1953. *From a Logical Point of View*, Harvard: Harvard University Press.
- Svenonius, P. 2001. "Subject Positions and the Placement of Adverbials", Svenonius, P. (ed.), *Subject, Expletives and the EPP*, New York: Oxford University Press, 201-242.
- Van Valin, R. D., LaPolla R. J. 1997. *Syntax: Structure, meaning and function*, Cambridge: Cambridge University Press.
- Van Valin, R. D. 2005. *Exploring the Syntax-Semantics Interface*, Cambridge: Cambridge University Press.
- Wiemer, B. 2006. "Particles, parentheticals, conjunctions and prepositions as evidentiality markers in contemporary Polish. (A first exploratory study.)", *Studies in Polish Linguistics* 3, 1-52.