Adverbial (dis)ambiguities. Syntactic and prosodic features of ambiguous predicational adverbs

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1. Introduction

Chapter 2 of this volume provides a comprehensive analysis that accounts for the placement of Hungarian adverbial adjuncts, deriving all of their word order possibilities, scope relations and prosody. In this paper I present novel data concerning the behavior of a narrower class of adverbs, so-called predicational sentence adverbs, discuss the role of prosody in relation to their syntactic and semantic properties, and propose an analysis that accounts for these additional facts as well.

In the first part of the chapter, I concentrate on ambiguous predicational adverbs exhibiting both manner and clausal readings (e.g. *szokatlanul* 'oddly', *okosan* 'cleverly'), and my aim is to show that their stress properties and prosodic integration can be derived from their syntactic position (determined by their semantically motivated selectional requirements) in the same way as in the case of ordinary adverbs. However, ambiguous adverbs, being semantically under-specified, have more than one possible sites to be adjoined to and their interpretation will depend on the structural level at which their adjunction takes place. In postverbal position, owing to the free word order and neutralized prosodic environment, the normal disambiguating strategies (see section 3.1) fail to function. The wide scope and sentential reading of an ambiguous adverb become available only by blocking the so-called 'intonational phrase restructuring' rule (the fusion of two intonational phrases), in other words, by preserving the intonational autonomy of the high adjoined adverb (3.4.3).

In the second part of this chapter I show that a special type of ambiguity emerges within the sentence adverb class as well. There is a group of epistemic adverbs that shows two sets of distributional and stress properties, one of which can be attributed to a special function. Unlike canonical sentence adverbs, these epistemic adverbs (expressing conviction on behalf of the speaker) are linked exclusively to verum focus when they bear primary stress. In this usage they escape all the usual generalizations established for sentence adverbs: they can appear in questions, or in the scope of other operators, including negation. (In this sense, they behave more like pragmatic particles.) I propose to integrate this function with the model established for adjunct licensing by means of allo-

cating a verum phrase and a related adjunction site specifically for this particular group of adverbs.

The chapter is organized as follows. Section 2 presents the theoretical background, the syntactic and semantic models applied throughout the paper. Section 3 discusses Hungarian sentence adverbs with particular attention to ambiguous predicational adverbs having both clausal and manner readings: their distribution, their interaction with intonational patterns, their distinct structural positions, and finally, the consequences of right-adjunction, namely, the way that postverbal ambiguous adverbs are disambiguated by prosodic means. Section 4 is devoted to the special case of ambiguity mentioned above. The case of the adverb *biztosan* 'certainly' illustrates a whole class of sentence adverbs that show irregular prosodic and distributional properties. The structural and functional analysis of the phenomenon suggests that these adverbs can be adjoined lower in course of the derivation than canonical sentence adverbs and in this position they modify a special type of focus structure, the so-called assertive or verum focus. The intriguing three-way ''ambiguity'' of *biztosan* 'certainly' is derived from the three possible adjunction sites available for it, while my analysis also accounts for the different prosodic properties of the sentence types including such adverbs.

2.   Theoretical background

Bellert (1977) refines Jackendoff's (1972) classification of adverbs (VP-adverbs, subject-oriented, speaker-oriented) subdividing adverb classes into more refined categories on a semantic basis, and taking into account distributional properties other than position alone. I will rely on Bellert's assumptions regarding primarily the subclasses of the speaker-oriented group, which she shows not to be a homogeneous one.

With regard to the theoretical model, providing the general mechanism for the distribution of adjuncts, I follow Ernst's (2002) adjunction-based syntax and event-based semantics, according to which several layers of event types and proposition types can be built on a basic event until the representation of the proposition for the whole sentence is completed. Adverbs of different subclasses have selectional requirements for a specific type of semantic argument, namely, an event, a proposition, or a fact – a Fact-Event Object (FEO) in Ernst's terminology –, and the compositional rules responsible for their combination are referred to as the FEO Calculus. Ernst's model can derive the relative order and the scope relations of the different adverb types with the same effectiveness as the more restricted feature-checking theory of Cinque (1999). Furthermore,

Ernst allows right-adjunction, and his framework provides a more adequate analysis when it comes to Hungarian data.

According to Ernst (2002: 45), the hierarchy of predicational adverbs on lexico-semantic grounds is as follows:

(1)   discourse-oriented > evaluative > modal > evidential > subject-oriented > negative > manner

This hierarchy practically corresponds to the one established by Cinque (1999: 11–13) for "higher AdvPs":[1]

(2)   speech act/pragmatic adverbs > evaluative > evidential modal > epistemic modal > '*forse*' > subject-oriented

In fact, this is also the normal ordering of Hungarian sentence adverbs in the preverbal field. Observe (3) and (4), where the scope hierarchy is reflected by the rigid order of the evaluative and epistemic adverbs.

(3)   a.   *Hugó szerencsére valószínűleg feldíszítette a   karácsonyfát.*
           Hugo luckily   probably   decorated   the Christmas tree
           'Luckily, Hugo probably has decorated the Christmas tree.'
      b.   **Hugó valószínűleg szerencsére feldíszítette a   karácsonyfát.*
           Hugo probably   luckily   decorated   the Christmas tree
           Intended: 'Probably, Hugo luckily has decorated the Christmas tree.'

(4)   *Hugó valószínűleg feldíszítette szerencsére a   karácsonyfát.*
      Hugo probably   decorated   luckily   the Christmas tree
      'Luckily, Hugo probably has decorated the Christmas tree.'

Hungarian adverbs may appear both preverbally and postverbally, but only their preverbal order is strictly fixed. In the postverbal field the order of the elements is relatively free in spite of the fact that the adverbs maintain their scope, and usually their stress properties, as well. A postverbal sentence adverb may have scope over a preverbal one (4), and two postverbal adverbs may also show scope hierarchy independently of their position and relative order in the sentence.

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[1] Note, however, that the order of evidentials and epistemic modals is reversed in the two models. In my view, this might be due to a categorial uncertainty concerning evidentials. For the concept of evidentiality, see the special issue of *Journal of Pragmatics* (33. 2001) with seven selected papers on this topic, especially that of Dendale and Tasmowsky, which summarizes the possible relation types between the notions of evidentiality and modality, and how these terms are used in the relevant literature.

In chapter 2 É. Kiss derives the postverbal positions and free order of adverbs by allowing right adjunction, and positing an independently motivated assumption that the postverbal section of the Hungarian sentence is linearized freely in PF. Thus, right-adjoined sentence adverbs, still c-commanding their scope at the syntax-LF interface, can be ordered randomly in the postverbal string. A challenge for such an analysis is raised by ambiguous predicational adverbs that have both manner and clausal readings, and seem to be under-specified in the lexicon. As they can be combined with at least two types of FEO arguments, their proper interpretation will depend on which point of the derivation they are adjoined to the structure. Distinguishing between the two readings in the preverbal field is straightforward since the adverbs show the same syntactic and stress properties in their manner adverb and sentence adverb function as their non-ambiguous counterparts. (These properties and rules established for manner and sentence adverbs will be enumerated in the next section.) However, in postverbal position, where word order and under focus and negation also prosodic properties are neutralized, the obligatory preservation of the independent intonational phrase of the high adjoined adverb will assure its clausal reading.

3.   Ambiguous predicational adverbs

In order to show the problems concerning ambiguous adverbs, the general properties of sentence adverbs in comparison with manner adverbs will be demonstrated first, both in preverbal and postverbal positions. Three tests will be provided to separate sentence adverbs from other adverb types in the preverbal field, followed by a proposal about their proper adjunction sites. Lastly, it will be demonstrated that our tests cease to function postverbally due to stress neutralization effects. The complete integration of right-adjoined sentence adverbs into the intonational phrase constituted by an operator and its scope will not be a realizable option for ambiguous adverbs. In such a syntactic configuration, they will be disambiguated purely by prosodic means, i.e. preserving their intonational independence.

3.1.   Properties of sentence adverbs versus manner adverbs in preverbal position

3.1.1.   *Word order*

The least marked position for all predicational adverbs (both manner and clausal) in Hungarian is after the topic constituent, preceding the predicate:

Manner adverbs:

(5) *Hugó gyönyörűen feldíszítette a karácsonyfát.*
   Hugo beautifully decorated the Christmas tree
   'Hugo has decorated the Christmas tree beautifully.'

(6) *Hugó szorosan megkötötte a cipőfűzőjét.*
   Hugo tightly tied his shoelaces.
   'Hugo has tied his shoelaces tightly.'

Sentence adverbs:

(7) *Hugó valószínűleg feldíszítette a karácsonyfát.*
   Hugo probably decorated the Christmas tree
   'Hugo has probably decorated the Christmas tree.'

(8) *Hugó bizonyosan megkötötte a cipőfűzőjét.*
   Hugo undoubtedly tied his shoelaces
   'Hugo has undoubtedly tied his shoelaces.'

In general, Hungarian adverbs may also be inserted in other sentence positions relatively freely. Nevertheless, while sentence adverbs may show up in every possible position (9), manner adverbs usually cannot precede the topic constituent ((10)–(11)) – at least with normal intonation pattern –, and are more closely related to the predicate prosodically, too.

(9) *(Valószínűleg) Hugó (valószínűleg) feldíszítette (valószínűleg)*
   probably Hugo probably decorated probably
   a karácsonyfát (valószínűleg).
   the Christmas tree probably

(10) *(*Gyönyörűen) Hugó (gyönyörűen) feldíszítette (gyönyörűen)*
   beautifully Hugo beautifully decorated beautifully
   a karácsonyfát (gyönyörűen).
   the Christmas tree beautifully

(11) *(*Szorosan) Hugó (szorosan) megkötötte (szorosan)*
   tightly Hugo tightly tied tightly
   a cipőfűzőjét (szorosan).
   his shoelaces tightly

3.1.2. Appearance in focus position

A more reliable syntactic test to identify sentence adverbs is their (dis)ability of being focused. While manner adverbs ((12)–(13)) as well as so-called framing

adverbials, temporals and locatives (14) may occur in the structural focus position, subject- and speaker-oriented adverbs (15) cannot be focused (Of course, if the adverb in question is ambiguous, in focus position only the manner reading is available.):[2]

(12) *Hugó <"gyönyörűen díszítette   fel   a karácsonyfát.>*
      Hugo   beautifully decorated PRT the Christmas tree
      'Hugo decorated the Christmas tree BEAUTIFULLY.'

(13) *Hugó <"szorosan kötötte meg a cipőfűzőjét.>*
      Hugo   tightly   tied   PRT his shoelaces
      'Hugo tied his shoelaces TIGHTLY.'

(14) *Hugó <"tegnap|három óra alatt|23-án|most|a nagyszobában*
      Hugo   yesterday/in three hours/on the 23rd/now/in the living room
      díszítette   fel   a karácsonyfát.>
      decorated PRT the Christmas tree
      'Hugo decorated the Christmas tree YESTERDAY/IN THREE
      HOURS/ON THE 23rd/NOW/IN THE LIVING ROOM.'

(15) **Hugó <"bizonyára|valószínűleg|szerencsére díszítette   fel*
      Hugo   surely/probably/luckily   decorated PRT
      a karácsonyfát.>
      the Christmas tree

3.1.3. Stress

Neutral sentences in Hungarian are characterized by evenly distributed (non-contrastive) stress on every constituent, where each of the phonological phrases has a similar falling contour. After a structural focus bearing primary stress, however, stress reduction of the other constituents may be observed, moreover, the finite verb must be entirely destressed. Other preverbal operators may display the same effects (Hunyadi 2002; Vogel and Kenesei 1987). As stressing the topic constituent(s) is optional, the characteristic intonation contour of neutral sentences starts off with the first obligatory primary stress on PredP, whose head position is occupied by the verb, and whose specifier may be filled by a particle or other so-called 'verb-modifier'.[3] If an adverb directly precedes a

[2] That the adverbs are located in focus position in these examples is shown by the reversed order of the verb-modifier particle (PRT) and the verb, in addition to the post-focus stress reduction signaled here by angle brackets.
[3] Verb-modifiers are secondary predicates expressed by a verbal particle or a bare nominal complement directly preceding the verb (consult É. Kiss 2006a for a detailed analysis). For Hungarian sentence structure see section 3 of Chapter 2 with further references.

complex consisting of a verb-modifier followed by a verb, primary stress falls on the adverb as well (16). Sentence adverbs in the same position do not have to be assigned stress at all (17), whereas an unstressed manner adverb is un-grammatical (18).[4]

(16) *Hugó ″szorosan ″megkötötte a ″cipőfűzőjét.*
        Hugo tightly   PRT-tied   his shoelaces
        'Hugo has tied his shoelaces tightly.'

(17) *Hugó valószínűleg ″megkötötte a ″cipőfűzőjét.*
        Hugo probably   PRT-tied   his shoelaces
        'Hugo has probably tied his shoelaces.'

(18) **Hugó szorosan ″megkötötte a ″cipőfűzőjét.*
        Hugo tightly   PRT-tied   his shoelaces

3.2.   Ambiguous adverbs preverbally and their stress properties

In ambiguous cases – where the predicational adverbs have both a manner and a clausal reading – the two readings are disambiguated by prosody:

(19) *Hugó ″okosan ″megválaszolta a ″kérdést.* (manner)
        Hugo cleverly PRT-answered the question
        'Hugo has answered the question cleverly.' i.e. Hugo's answer was clever.

(20) *Hugó ⁽′⁾okosan ″megválaszolta a ″kérdést.* (clausal)
        Hugo   cleverly PRT-answered the question
        'Cleverly, Hugo has answered the question.' i.e. It is clever of Hugo to have answered the question (while the content of his answer may have been unintelligent).

As the primary stress falls on the beginning of the PredP/FocP, if the adverb bears only secondary stress or no stress at all, it will be interpreted as a sentence adverb because sentence adverbs tend to be unstressed. In (20) the adverb *okosan* is a subject-oriented adverb. While an ambiguous adverb like *okosan* may precede the topic (21) and may appear in focus position (22), in these positions, as expected, only one of the readings is available in accordance with the restrictions detailed above:

(21) *Okosan Hugó megválaszolta a   kérdést.* (only clausal reading)
        cleverly Hugo PRT-answered the question
        'Cleverly, Hugo has answered the question.'

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[4]Primary stress will be indicated by a double stress mark (″), secondary stress by a single stress mark (′) and non-stress will remain unmarked.

(22)   *Hugó <okosan válaszolta meg a   kérdést.>* (only manner reading)
        Hugo   cleverly answered PRT the question
        'It was in a clever manner that Hugo answered the question.'

Nonetheless, we need not suppose two homonymous adverbs in the lexicon. Ernst (2002: 38) claims that the lexical entry for an adverbial may be under-specified so that it may combine with different semantic objects according to different compositional rules. The fact that *okosan* is able to take two types of semantic arguments results in two different readings.

Similar cases may be easily found in the speaker-oriented subclass as well: adverbs with both manner and epistemic modal readings (e.g. *természetesen* 'naturally'), with manner and evaluative readings (e.g. *szokatlanul* 'unusually'), and with manner and discourse-oriented or pragmatic readings (e.g. *röviden* 'briefly'). Nevertheless, the adverb with manner reading is often preferable in structural focus position (24b), and the discourse-oriented reading of an ambig-uous adverb normally favors the foremost position, even preceding the topic constituent (25b).

(23)   a.   *Lola "természetesen "végigvonult   a "színpadon.* (manner)
              Lola   naturally   along-walked the stage
              'Lola walked along the stage naturally.'
        b.   *Lola ⁽ʼ⁾természetesen "végigvonult   a "színpadon.* (clausal)
              Lola   naturally   along-walked the stage
              'Naturally, Lola walked along the stage'

(24)   a.   ?*Hugó "szokatlanul "feldíszítette   a "karácsonyfát.* (manner)
              Hugo   oddly   PRT-decorated the Christmas tree
              'Hugo decorated the Christmas tree oddly'
        b.   *Hugó <"szokatlanul díszítette   fel   a "karácsonyfát.>* (manner)
              Hugo   oddly   decorated PRT the Christmas tree
              'Oddly, Hugo decorated the Christmas tree.'
        c.   *Hugó ⁽ʼ⁾szokatlanul "feldíszítette   a "karácsonyfát.* (clausal)
              Hugo   oddly   PRT-decorated the Christmas tree
              'Oddly, Hugo decorated the Christmas tree.'

(25)   a.   *Lola "röviden "elmesélte   a "kalandjait.* (manner)
              Lola briefly   PRT-narrated her adventures
              'Lola narrated her adventures briefly.'
        b.   *Röviden Lola "elmesélte   a "kalandjait.* (clausal)
              briefly   Lola PRT-narrated her adventures
              'Briefly, Lola narrated her adventures.'

3.3.   Defining the adjunction sites for adverbs

The different prosodic properties and the different readings of one and the same adverb follow from the fact that it can be adjoined at distinct points in the course of the derivation. In particular, the ambiguity of such adverbs is claimed to be due to their potential association with two different adjunction sites. The difference in structural positions can be tested straightforwardly in the presence of a quantifier phrase. The two adjunction sites illustrated in (26) correspond to two different readings. The clausal reading is not available in the scope of the quantifier.

(26)   *Lola (okosan$_{CLAUSAL}$) mindenkinek (okosan$_{MANNER}$) megválaszolta*
     Lola cleverly   to everyone cleverly   answered
     a kérdést.
     the question
     '(Cleverly,) Lola has answered the question to everyone (cleverly).'

The identification of the two positions with different functions becomes straight-forward in an example where only one of the readings (the subject-oriented one) is interpretable (27a). The adverb *okosan* can neither appear in the scope of the quantifier (27b), nor be focused (27c) since in such cases it could have the manner reading only. However, the manner adverb *okosan* makes little sense in these examples.

(27)   a. *Lola okosan mindenkinek elküldte   a levelet.*
        Lola cleverly to everyone PRT-sent the letter
        'Lola was clever (enough) to send everyone the letter.'
     b. **Lola mindenkinek okosan elküldt   a levelet.*
        Lola   to everyone cleverly PRT-sent the letter
        Intended: 'Lola has sent everyone the letter cleverly.'
     c. **Lola mindenkinek <okosan küldte el a levelet.>*
        Lola   to everyone   cleverly sent PRT the letter
        Intended: 'It was in a clever manner that Lola sent everyone
        the letter.'

The two readings are clearly distinguishable in the negated counterparts of (19) and (20) since their implications are distinct. Noticeably, sentence adverbs are not within the scope of negation.

(28)   *Hugó nem válaszolta meg okosan a kérdést.* $-|\rightarrow$
     'Hugo did not answer the question cleverly'
     Hugó nem válaszolta meg a kérdést.
     'Hugo did not answer the question'

(29) *Hugó okosan nem válaszolta meg a kérdést.* →
      'Cleverly, Hugo did not answer the question'
      Hugó nem válaszolta meg a kérdést.
      'Hugo did not answer the question'

(30) *Hugó nem díszítette fel szokatlanul a karácsonyfát.* –|→
      'Hugo did not decorate the Christmas tree oddly'
      Hugó nem díszítette fel a karácsonyfát.
      'Hugo did not decorate the Christmas tree'

(31) *Hugó szokatlanul nem díszítette fel a karácsonyfát.* →
      'Oddly, Hugo did not decorate the Christmas tree'
      Hugó nem díszítette fel a karácsonyfát.
      'Hugo did not decorate the Christmas tree'

Since positing two distinct lexical entries for such ambiguous adverbs seems infelicitous, I claim instead in line with Ernst (2002) that these adverbs are underspecified in the lexicon: they can select for different FEO arguments according to different compositional rules. The task to be completed here is to determine these compositional rules, namely, what the exact points of derivation are at which the adjunction of such ambiguous adverbs takes place.

Despite the possible surface homonymy, the adjunction sites prove to be absolutely distinct, with no overlapping area. As demonstrated above, manner adverbs are closely related to the predicate, being located below the universal quantifier(s) and negation. The adverb itself can be focused (15)–(16), but cannot precede a topic constituent (cf. (10), (11) and (21)). Relying on the basic sentence structure defined for Hungarian (É. Kiss 2006c, 2008, and section 3 of chapter 2 in this volume), the typical adjunction site for manner adverbs is assumed to be PredP, and the highest position they can occupy is the structural Focus position (Spec,FP). Sentence adverbs, on the other hand, seem to fall outside the predicative portion of the sentence; they can be neither focused, nor negated. They precede even the quantifiers, which are supposed to be adjoined to PredP, FocP or NegP (in other words, to the neutral or non-neutral predicate). Adjunction to the Topic Phrase could be a straightforward solution, but topics can also precede the sentence adverbs. Furthermore, such adverbs can appear in topicless sentences as well. This leads us to consider an additional functional layer higher than the already identified functional material in the derivation, but potentially below the Topic Phrase, which can be both preceded or followed by the sentence adverbs.

Haegeman (2002) claims that in every syntactic pattern, which is in broad terms a speech act (i.e. has illocutionary force), there must be a functional layer responsible for speaker-anchoring. She modifies Rizzi's (1997) 'split CP

hypothesis' by making a distinction between the head that encodes 'force' and the head that serves merely to subordinate the clause (Sub). As she puts it, "the presence of the functional head Force (...) directly correlates with what is referred to as 'illocutionary force', the fact that the speaker takes on the proposition as part of a speech act (assertion, prediction, question)" (Haegeman 2002: §7.2). Moreover, she argues that Topic and Focus (being "Force-related projections") depend on the presence or absence of such a speaker-related functional head.

Subsequently, Haegeman (2006: 1662–1663) dubs Force as "speaker-deixis" (SD) following Tenny (2000: 317–319), who proposes that the relation of adverbs to functional projections is defined by means of semantic characteristics. Tenny regroups Cinque's universal hierarchy of functional projections into six semantic zones. The topmost 'point of view' or 'speaker-deixis' zone "contains those mood and modality elements that necessarily introduce the point of view of the speaker, and therefore also introduce the speaker as a sentient, deictic argument", namely, speech-act, evaluative, evidential and epistemic expressions.

Situating sentence adverbs in such a speaker-related functional projection of the CP domain that serves as an interface between the propositional content and its context seems reasonable. Sentence adverbs are attitude markers that provide additional information that is external to the proposition expressed by the core sentence. Speaker deixis may also host 'force' features (declarative, question, etc.) in Hungarian.[5] Since such adverbs seem to occur only in assertive contexts (see 4.2.1) an additional restriction must be formulated about their adjunction, namely, that they can be adjoined to sentences conveying an assertive/declarative speech-act. Nevertheless, the shortcoming of such an analysis undoubtedly is the increase in number of the functional projections in sentence structure.

3.4. Adverbs in postverbal position

3.4.1. Non-ambiguous adverbs postverbally

The fact that each type of adverbs may occur postverbally as well raises further difficulties. In accordance with É. Kiss's theory, adverbs in postverbal position maintain their original scope, as they are right-adjoined, inserted high in the structure, and subject to free linearization only at PF. They are supposed to be

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[5]Topics will actually precede such a node, which does not raise problems for this analysis. They always constitute an independent intonational phrase; the characteristic interrogative contour starts on the first major-stressed syllable after the topic.

prosodically integrated in the sentence, i.e. not set off by comma intonation. The neutral sentences (32) and (33) illustrate a postverbal manner and an epistemic speaker-oriented adverb respectively. After a focus constituent or other logical operator that starts a characteristic intonation contour and effects stress reduction in its scope, the adverbs remain unstressed, or may receive optional secondary stress at most. The examples in (34) and (35) demonstrate that the word order following the finite verb is completely free.

(32)   *Hugó "megkötötte "szorosan a "cipőfűzőjét.*
       Hugo PRT-tied   tightly   his shoelaces
       'Hugo has tied his shoelaces tightly.'

(33)   *Hugó "feldíszítette   'valószínűleg a "karácsonyfát.*
       Hugo PRT-decorated probably   the Christmas tree
       'Hugo probably has decorated the Christmas tree.'

(34)   a. <*"Hugó kötötte meg* $^{(\prime)}$*szorosan a cipőfűzőjét.*>
          Hugo tied   PRT   tightly   his shoelaces
         'It was Hugo who tied his shoelaces tightly.'
       b. <*"Hugó kötötte meg a cipőfűzőjét* $^{(\prime)}$*szorosan.*>
          Hugo tied   PRT his shoelaces   tightly
         'It was Hugo who tied his shoelaces tightly.'

(35)   a. <*"Hugó díszített   fel* $^{(\prime)}$*valószínűleg a karácsonyfát.*>
          Hugo decorated PRT   probably   the Christmas tree
         'Probably, it was Hugo who decorated the Christmas tree.'
       b. <*"Hugó díszítette* $^{(\prime)}$*valószínűleg fel   a karácsonyfát.*>
          Hugo decorated   probably   PRT the Christmas tree
         'Probably, it was Hugo who decorated the Christmas tree.'
       c. <*"Hugó díszítette fel   a karácsonyfát* $^{(\prime)}$*valószínűleg.*>
          Hugo decorated PRT the Christmas tree   probably
         'Probably, it was Hugo who decorated the Christmas tree.'

(36) shows an evaluative adverb combined with negation. The adverb *szerencsére* 'luckily' is not ambiguous, and clearly has wider scope than the negation: the English equivalent of (36) would be (37a) and not (37b):

(36)   *Hugó nem válaszolt szerencsére a kérdésre.*
       Hugo not answered luckily   to the question

(37)   a.   Luckily, it is true that Hugo did not answer the question.
       b.   It is not true of Hugo that he luckily answered the question.

The fact that neither prosody nor word order signals how high the sentence adverb is adjoined (above NegP, supposedly to the SD projection) stirs up no storm, since non-ambiguous adverbs are lexically conditioned to select for a

high ranked FEO argument (in line with Ernst); thus, they are readily interpretable at LF, independently of their surface position.

3.4.2. Ambiguous adverbs postverbally

The situation becomes more complicated with ambiguous adverbs, since the neutralized prosodic environment of the postverbal domain cannot disambiguate the manner and the clausal readings. In (38) and (39), the adverbs should have a clausal reading, too, with scope over the negation; however, contrary to the above illustrated unambiguous sentence adverbs, such interpretation is not accessible here, only the manner reading is available.

(38)   *Hugó nem válaszolt okosan a kérdésre.*
        Hugo not answered cleverly to the question
        'Hugo did not answer the question cleverly.'

(39)   *Hugó nem válaszolt szokatlanul a kérdésre.*
        Hugo not answered oddly   to the question
        'Hugo did not answer the question oddly.'

As a matter of fact, the clausal reading can still be called forth, but only by a marked prosodic pattern, involving a short interval before and after the adjunct, i.e. by insertion of a pause. (□ = pause)

(40)   *Hugó nem válaszolt □ okosan □ a kérdésre.*
        Hugo not answered   cleverly   to the question
        'Cleverly, Hugo did not answer the question.'

(41)   *Hugó nem válaszolt □ szokatlanul □ a kérdésre.*
        Hugo not answered   oddly   to the question
        'Unusually, Hugo did not answer the question.'

The same phenomenon may be observed under identificational focus: an unambiguous evaluative sentence adverb can freely appear in its unmarked position after the topic (42a), or else in postverbal position (with the same sentential scope), and at the same time remain unstressed (42b). On the other hand, an ambiguous right-adjoined adverb will be interpreted in one way only: in the scope of focus with no clausal reading available (43).

(42)   a.   *Hugó szerencsére <az 'első kérdést válaszolta meg*
             Hugo luckily   the first question answered PRT
             az elnöknek.>
             to the chairman
             'Luckily, it was the first question that Hugo answered to the
             chairman.'

    b.   *Hugó <az 'első kérdést válaszolta meg szerencsére*
         Hugo   the first question answered PRT luckily
         az elnöknek.>
         to the chairman
         'Luckily, it was the first question that Hugo answered to the
         chairman.'

(43) a.   *Hugó okosan <az 'első kérdést válaszolta meg*
         Hugo cleverly   the first question answered PRT
         az elnöknek.>   (only clausal)
         to the chairman
         'Cleverly, it was the first question that Hugo answered to the
         chairman.'

    b.   *Hugó <az 'első kérdést válaszolta meg okosan*
         Hugo   the first question answered PRT cleverly
         az elnöknek.>   (only manner)
         to the chairman
         'It was the first question that Hugo answered to the chairman
         cleverly.'

    c.   *Hugó <az 'első kérdést válaszolta meg □ okosan □ az elnöknek.>*
         Hugo   the first question answered PRT cleverly   the chairman
         (clausal)
         'Cleverly, it was the first question that Hugo answered to the
         chairman.'

3.4.3. IP restructuring and its blocking

I propose that sentence adverbs, either left-adjoined or right-adjoined to a projection, constitute an intonational phrase (IP) of their own. Nonetheless, basic IPs may undergo restructuring under certain circumstances (cf. the 'IP restructuring rule' of Vogel and Kenesei 1987: 259–260 with further references), which means that shorter IPs to the right of a constituent marked [+SC][6] may optionally be joined into a larger IP.

    Therefore, in the course of the syntax-phonology mapping, after intonation contours are assigned and intonational phrases are set according to the melody

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    [6]According to their terminology (p. 255), [+SC] marks quantifiers with the widest scope. As far as I can judge, operators in general are included in their rule, so my following examples with negation are equally convenient to demonstrate the phenomenon. The same thing would happen, of course, in the presence of a focus construction. The original idea for IP resructuring comes from Nespor and Vogel 1986.

rules,[7] a right-adjoined adverb may unite with the preceding intonational phrase, as illustrated in (44b). Such an operation may be followed by free linearization of the postverbal elements, as a consequence of which sentence adverbs may appear in several positions within the IP constituted by the comment (cf. 44c).

(44) a. [Hugó]$_{IP}$ [nem válaszolt a kérdésre]$_{IP}$ [szerencsére]$_{IP}$
         Hugo   not answered the question   luckily
      b. [Hugó]$_{IP}$ [nem válaszolt a kérdésre   szerencsére]$_{IP}$
         Hugo   not answered the question luckily
      c. [Hugó]$_{IP}$ [nem válaszolt szerencsére a kérdésre]$_{IP}$
         Hugo   not answered luckily   the question

In unambiguous cases, restructuring may apply with no difficulties since such adverbs have their sentential scope feature coded ab ovo in the lexicon. The selectional requirement of *szerencsére* 'fortunately' for a 'fact' (in terms of Ernst) will be legible at LF independently of its surface position in the clause. Ambiguous adverbs, however, may take at least two different types of FEO arguments, their selectional requirements being underspecified in this respect. In a neutralized prosodic environment generated by the postverbal IP-restucturing and subsequent free linearization, one of the possible interpretations disappears: a prosodically integrated ambiguous adverb will be automatically interpreted as a manner adverb with a narrow scope reading, since manners are always adjoined low in the derivation, namely, directly to the predicate (PredP). To achieve the speaker- or subject-oriented sentential reading, prosody must reflect the wider scope by means of retaining the original intonational phrasing – simply for reasons of perception. The mixing of postverbal elements is still possible in such cases, but the independent intonational phrase of the adverb with the (intended) sentential function must be preserved through PF mapping.

(45) a. [Hugó]$_{IP}$ [nem válaszolt a kérdésre]$_{IP}$ [szokatlanul]$_{IP}$
         Hugo   not answered the question   unusually
      b. [Hugó]$_{IP}$ [nem válaszolt]$_{IP}$ [szokatlanul]$_{IP}$ [a kérdésre]$_{IP}$
         Hugo   not answered   unusually   the question

According to the general conditions on intonation setting, no IP can contain another IP (cf. Selkirk 1984: 26). Hence, as a consequence of free postverbal mixing, the original large IP (in which the character contour starts on a certain operator) splits into two or more IPs separated by the sentence adverb itself. The IP boundaries are clearly marked by pauses – as illustrated by (40), (41) and (43c).

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[7]For a detailed account of Hungarian intonational patterns and stress assignment, consult Varga 2002.

The outcome of the above survey is remarkable, since it seems to raise a challenge for the essential validity of the T-model.[8] If PF rules apply mechanically, relying on syntactic structure only (i.e. with no access to logical form), nothing prevents IP restructuring from being applied in all cases. Such phonological rules are not considered to reckon with semantic type features. However, in case of ambiguous adverbs, the optional IP restructuring rule must be blocked to prevent real surface ambiguity. Investigating what ensures the emergence of the manner interpretation as default in the case of (38), (39) and (43b), we might refer to an extended version of the so-called 'recoverability constraint on deletion' in terms of Chomsky (1981). In other words, the IP boundary can be deleted provided that the recoverability of the original adjunction level is not affected.

4.   Multiple "ambiguity": the case of stressed sentence adverbs

4.1.   Prosody and interpretation

Surprisingly enough, there are adverbs in Hungarian that show ambiguity also in their sentence adverb use. In (46a) and (46b), *biztosan* 'surely, certainly' has a manner reading. On the one hand, it is manifested by its position on the left edge of the predicate (46a); on the other hand, the adverb may optionally occupy the focus position as well (46b). The other two sentences below contain the same adverb with a sentential reading, but with a slight difference in meaning: (46c) expresses strong probability, while (46d) actual certainty.[9] It is the prosody that disambiguates the two readings: the sentence adverb carries primary stress in (46d), just like a manner adverb in such a position, but, in addition, stress reduction may be observed in the subsequent domain – signaled here by angle brackets.

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[8] Varga (2002: 6), indeed, proposed a slight modification of T-model, first of all because of Hungarian yes-no questions which are syntactically identical to their declarative counterparts and are distinguished only by their fixed intonation. In his view, this fact shows the special contribution of intonation to the full meaning of the utterance. As interrogative intonation may be easily derived by introducing a phonologically null 'question operator', his argument seems superfluous from the point of view of our investigation.

[9] The difference shown in (46c) and (46d) was pointed out also by Kiefer (2005: 136). In his wording, the former usage suggests only a supposition on the speaker's part like in sentences containing *feltehetőleg* 'supposedly', *valószínűleg* 'probably', etc. The latter, stressed *biztosan* expresses the speaker's belief that the state of things corresponds to what figures in the proposition.

(46) a. *Hugó "biztosan   "eltalálta a "céltábla "közepét.* (manner)
    Hugo confidently hit   the target   in the middle
    'Hugo hit the bull's eye confidently.'
 b. *Hugó <"biztosan   találta el a céltábla közepét.>* (manner)
    Hugo   confidently hit PRT the target in the middle
    'It was confidently that Hugo hit the bull's eye.'
 c. *Hugó 'biztosan "eltalálta a "céltábla "közepét.* (clausal$_1$: probability)
    'Very probably, Hugo hit the bull's eye.'
 d. *Hugó <"biztosan eltalálta a céltábla közepét.>* (clausal$_2$: certainty)
    'Certainly, Hugo hit the bull's eye.'

When negated, the clausal and manner readings show the contrast already demonstrated in section 3.3, but now an additional property may be observed: the implications of the two negated sentences containing these slightly different sentence readings will not be the same, either:

(47) a. *Hugó 'biztosan "nem találta el a céltábla közepét. −|→*
    'Hugo very probably did not hit the bull's eye'
    Hugó nem találta el a céltábla közepét.
    'Hugo did not hit the bull's eye.'
 b. *Hugó "biztosan nem találta el a céltábla közepét.→*
    'Hugo certainly did not hit the bull's eye'
    Hugó nem találta el a céltábla közepét.
    'Hugo did not hit the bull's eye.'

Moreover, in postverbal position, the unstressed adverb can be interpreted not only as a manner adverb, but also as a sentence adverb (48a), at least in the sense introduced in (46d). To evoke the other clausal reading (that of strong probability) the above mentioned pauses should be applied (48b). Note that in (48) the negation has scope over the adverb (Neg>*biztosan*), unlike to (47) where it was the other way round (*biztosan*>Neg).

(48) a. *Hugó "nem találta el   biztosan a céltábla közepét.*
    Hugo not hit   PRT certainly the target in the middle
    'Hugo did not hit the bull's eye confidently.' (manner) or
    'It's not certain that Hugo hit the bull's eye' (clausal$_2$)
 b. *Hugó "nem találta el □ biztosan □ a céltábla közepét.* (clausal$_1$)
    Hugo not hit   PRT certainly the target in the middle
    'Hugo, very probably, did not hit the bull's eye.'

The question arises whether this type of ambiguity should be treated as an isolated case, or whether it is possible to identify a certain class of adverbs of the

same kind. By definition, sentence adverbs in Hungarian are usually unstressed (Kiefer 2005: 136). Observing the data, it may be confirmed that the majority of these adverbs does avoid being stressed. Ambiguous predicationals evoke the manner reading when they carry primary stress (cf. 3.1). However, there is a small number of sentence adverbs with an unambiguously clausal reading (such as *mindenképpen* 'by all means', *feltétlenül*, *okvetlenül* 'definitely') that sound undeniably better when they carry the primary stress of the sentence and at the same time effect stress reduction to their right:

(49) a. *Hétvégére   "feltétlenül elolvad a hó.*
          By the weekend definitely   melt   the snow
          'There's no doubt, the snow will have been melted by the weekend'
      b. **Hétvégére feltétlenül "elolvad a hó.*

(50) a. *Hugó "okvetlenül eljegyzi   Lolát.*
          Hugo definitely is engaged to Lola
          'Hugo will be engaged to Lola under any circumstances.'
      b. **Hugó okvetlenül "eljegyzi Lolát.*

In addition, there are further adverbs that oscillate between being stressed or not. It is notable that even though they are not ambiguous in respect of the clausal/manner opposition (having an exclusively sentential function), they show the same difference in meaning (strong probability vs. certainty) as *biztosan* in its sentential use:

(51) a. *A macska "kétségtelenül megette a madárfiókát.*
          the cat   undoubtedly PRT-ate the nestling
          'There's no doubt that the cat has eaten the nestling'
      b. *A macska 'kétségtelenül "megette a madárfiókát.*
          the cat   undoubtedly   PRT-ate the nestling
          'The cat very likely has eaten the nestling'

The problem is how to specify the common features of this special group of adverbs. They all seem to belong to the class of epistemic modals since they express the speaker's commitment to the truth of the proposition based on his/her own belief or evidence. Shall we label them directly as *evidential* adverbs? For the moment, it can be posited that they all come near 'certainty' in their meaning, and it is this semantic characteristic that contributes to their special behavior. In the next section it will be demonstrated that beyond admitting stress assignment, such adverbs are capable of being used in syntactic environments that are normally not available for the members of their class.

4.2.   Distribution

4.2.1.   General distributional restrictions

A rather intriguing property of the members of this special class of stressed sentence adverbs is that they also seem to escape further generalizations established for speaker-oriented adverbs.

Bellert (1977) observes that speaker-oriented adverbs such as evaluatives (*fortunately*), evidentials (*evidently*) and modals (*possibly*) have a rather restricted distribution: they are degraded in questions, imperatives and antecedents of conditionals, and they do not occur in the scope of negation. Discussing the domains that resist such adverbials, Nilsen (2004) proposes an analysis of speaker-oriented adverbs that treats them as positive polarity items (PPIs), since they are excluded from the same types of environments that license negative polarity items (NPIs). Nilsen interprets the restrictions on sentence adverbs as a consequence of the general restrictions on PPIs. According to Haegeman (2006: 1653), however, the restrictions must have another source, since the relevant class of speaker-oriented adverbials is banned from a wider range of adverbial clauses (certain temporal adverbial clauses, purpose clauses, etc.), which are not all NPI-licensing contexts. Further, Haegeman demonstrates that there are cases where these adverbial clauses admit speaker-oriented adverbs, and shows that these apparent exceptions are due to the fact that such adverbial clauses are *discourse-related*, rather than to their polarity. She proposes that discourse-related conditionals (and adverbial clauses) have a more complex functional structure than their event-related counterparts, and they are adjoined to the host clause at a much later point in the derivation. Following Declerck and Reed (2001: 83), Haegeman states (2006: 1655) that these more complex, peripheral conditional clauses are echoic in nature. Meanwhile, Christopher Piñón (p.c.) explains the distributional restrictions from a different point of view: in his semantic approach, modal adverbs can modify *assertions*, and the property that speaker-oriented adverbials are banned from contexts like questions, conditionals, etc. follows from the fact that none of those contexts are assertive.

Independently of the above discussions, similar observations have been made in the descriptive literature on Hungarian as well. The word class *módosítószó* ('modifier word'), which by and large corresponds to our sentence adverb class, is claimed to occur mostly in declarative sentences (Kugler 2001). Furthermore, Kiefer (2000: 325) proposes that the 'modifier word' and the 'modifier adverb' are such modal operators that always have the widest scope, and cannot fall within the scope of another operator.

4.2.2.   The exceptional behavior of stressed sentence adverbs in questions

In fact, *prima facie* the same distributional restrictions hold for Hungarian speaker-oriented adverbs. After repeating Bellert's English examples (1977: 342 and 344; (52) and (56) in our examples), some Hungarian data are given below to demonstrate the ungrammaticality of these adverbs in questions. According to Hungarian speakers' judgments, the sentences below are ill-formed or marginal.[10]

(52)   *Has John suprisingly arrived?

(53)   *Hugó szerencsére megérkezett?*
      Hugo   fortunately arrived
      Intended: 'Has Hugo fortunately arrived?'

(54)   ?*Hugó szerencsére "megtalálta   a gyűrűjét?*
      Hugo   fortunately   PRT-found his ring
      Intended: 'Has Hugo fortunately found his ring?'

(55)   ?*Hugó "megválaszolta   szerencsére a kérdést?*
      Hugo   PRT-answered fortunately the question
      Intended: 'Did Hugo fortunately answer the question?'

(56)   *Has John probably come?

(57)   *Hugó valószínűleg megérkezett?*
      Hugo   probably   arrived
      Intended: 'Has Hugo probably arrived?'

Even if these sentences are accepted, one has to consider them echoic, i.e. closely related to the discourse. Unfortunately, the judgment whether a proposition is echoic or not proves to be somewhat problematic, since there is no straightforward test to decide it.[11]

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[10] Ramat – Ricca (1998) managed to find examples for evaluatives and modals in questions in certain European languages, but the occurrences cannot be extended to whole classes of adverbs, and judgments are marginal even in the isolated cases.

[11] The sentences become more readily interpretable with a special intonation typical of declaratives preceding tag questions, where the end of the character contour does not fall towards the baseline (i). Another possibility would be an even intonation with rising intonation sequences and primary stress on each word of the sentence, which expresses surprised and/or skeptical attitude of the speaker (ii). The precondition of both intonation patterns is that the propositional content should be familiar to the speaker.

(i)   *Hugó szerencsére megválaszolta a kérdést*, *nem?*
      'Hugo luckily answered the question, didn't he?

(ii)   "*Hugó "váratlanul "megválaszolta a "kérdést?*
      Hugo unexpectedly answered the question

Interestingly, however, questions with the sentence adverb *biztosan* in its "certainty" meaning (cf. (46d)) are absolutely acceptable and grammatical.

(58)   *Hugó "biztosan megszerelt a mosógépet?*
Hugo   certainly repaired   the washing-machine
'Is it certain that Hugo has repaired the washing-machine?'

(59)   *"Biztosan megveszed a jegyeket?*
Certainly buy-2sg   the tickets
'Is it certain that you are going to buy the tickets?'

The same irregular behavior characterizes the epistemic adverbs that were shown above to be able to bear primary stress (Cf. 4.1.), for instance, *feltétlenül, okvetlenül* (with a strong preference for being stressed) *nyilvánvalóan, kétségkívül* (oscillating group).

(60)   *Hugó "okvetlenül feldíszíti   a karácsonyfát?*
Hugo   definitely PRT-decorate the Christmas tree
'Is it definite that Hugo will decorate the Christmas tree?'

(61)   *A macska "kétségkívül   megette a madárfiókát?*
the cat   undoubtedly PRT-ate the nestling
'Is there no doubt that the cat has eaten the nestling?'

4.2.3.   The exceptional appearance of stressed sentence adverbs in the scope of operators

Sentence adverbs are claimed not to appear in the scope of negation. As mentioned above, if such Hungarian adverbs apparently occur to the right of negation, it is the result of the right-adjunction and the subsequent PF linearization of the postverbal elements; the sentence adverb maintains its wide scope over negation (Cf. section 3.3). This is not true of *biztosan* and other adverbs like it, which can be understood to be in the scope of negation.

(62)   *Lola nem érkezett meg biztosan.*
Lola not arrived PRT certainly
'It is not certain that that Lola has arrived.' or 'It is not true that Lola has certainly arrived.'

(63)   *Hugó nem házasodik meg feltétlenül.*
Hugo not be married PRT inevitably
'Hugo won't inevitably be married.'

A further example may be found under (48a) in section 4.1. Accordingly, sentence adverbs that are major-stressed in declaratives *can* fall within the scope of another operator such as negation, which suggests that these adverbs are adjoined lower in derivation, before negation is projected. In section 4.1, a few sentence adverbs (*mindenképpen*, *feltétlenül*, *okvetlenül*) were introduced that always seem to be major-stressed. Another peculiarity of this group is that they can appear directly adjacent to the negation word.

(64) *Hugó nem feltétlenül házasodik meg.*
      Hugo not necessarily be married PRT
      'Hugo won't be married inevitably.'

The same feature cannot be observed with the '*biztosan*' type.

   I will argue in the next section that the apparent oddities of these special adverbs, inasmuch as they can be questioned, negated, and may appear in various types of adverbial clauses that normally do not admit sentence adverbs can be explained in a unitary fashion by assuming that it is the position or level of their adjunction that determines all their properties.

4.3.   Adjunction sites for stressed sentence adverbs

In the following section, a unitary syntactic analysis will be provided to account for the special behaviour of certain Hungarian (ambiguous) sentence adverbs reviewed here for the sake of explicitness. These adverbs carry primary stress and trigger stress reduction in their c-command domain, they can appear in questions and other syntactic environments otherwise inaccessible to sentence adverbs, and, as regards their lexical semantics, they all express some kind of 'certainty' on behalf of the speaker, at least in one of their uses.

4.3.1.   Adjunction to verum focus

In the preceding sections, I have already alluded to the possibility that these adverbs are adjoined lower than prototypical sentence adverbs in course of the derivation. Now an additional piece of evidence will be given to demonstrate that they do not occupy the previously supposed speaker-related functional projection 'SD' (a position introduced to host sentence adverbs that reflect some sort of speech act or attitude), and definitely appear below the position they are required to occupy universally (cf. (1) and (2) in section 2). As regards the preverbal ordering, speaker-oriented adverbs normally precede the subject-oriented ones. Yet a major-stressed sentence adverb seems to violate the scope

hierarchy and occupy an alternative position. It appears to dominate the predication part (PredP in neutral sentences and FocP/NegP in non-neutral ones[12]) directly, as a consequence of which the ambiguous adverb in its scope can only be interpreted as a manner adverb (65). The fact that no clausal reading is available here becomes clear in (66), where the manner interpretation is excluded for lexical reasons.[13] Since the ambiguous adverb *okosan* 'cleverly' has another (subject-oriented) interpretation, one would expect the adverb to figure as a sentential one, but in such a context that reading does not become available.

(65) *Hugó ″biztosan okosan megválaszolta a kérdést.
     Hugo   certainly cleverly answered   the question
     Intended: 'It is certain that Hugo was clever for having answered the
     question' (with clausal$_2$ 'certainty' reading)

(66) *Lola ″biztosan okosan elküldte a levelet.
     Lola   certainly cleverly PRT-sent the letter.
     Intended: 'It is certain that Lola was clever (enough) to send the letter.'

If the combination of a subject-oriented adverb and the stressed version of *biztosan* is wanted, the former will be in the higher position, thus preceding the evidential in linear order (67). Undoubtedly, the subject-oriented adverb has scope over the epistemic one, which seems to contradict the generalizations concerning the relative order of sentence adverbs.

(67) Hugó okosan ″biztosan megvette   már   a vonatjegyeket.
     Hugo cleverly   certainly PRT-bought already the railway tickets
     'It is clever of Hugo to have certainly bought the railway tickets'

Based on the data shown so far, I propose that *biztosan* and the other major-stressed sentence adverbs are adjoined exclusively to propositions involving a so-called verum focus (to be elaborate below). As a matter of fact, there is group of Hungarian pragmatic/modal particles[14] (*valóban/tényleg/csakugyan/ igazán*, all of them meaning 'indeed, really') whose properties and function are comparable to those of the sentence adverbs under investigation. They are obligatorily stressed (see (68) and (69)), can appear in questions and imperatives (70), and cannot be focused but can modify a focus constituent (71):

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[12] For the functional projections recognized for Hungarian see É. Kiss (2006c) and the introductory chapter of that volume.

[13] (65) and (66) would be grammatical with primary stress on the finite verb. In that case *biztosan* would be interpreted in its strong probability (clausal$_1$) meaning, or else with a narrow scope spanning over the subject-oriented *okosan* only.

[14] The term *pragmatic particle* is used by Kugler (2003, 44), while Kiefer (1988) calls them *modal particles*.

(68) a. *A macska valóban ″megette a madárfiókát.
      b.   A macska ″valóban megette a madárfiókát.
           the cat   really   PRT-ate the nestling
           'The cat has really/in fact eaten the nestling.'

(69) a. *Hugó   tényleg ″feldíszítette   a karácsonyfát.
      b.   Hugó ″tényleg feldíszítette   a karácsonyfát.
           Hugo   really   PRT-decorated the Christmas tree
           'Hugo has really decorated the Christmas tree.'

(70) a. A macska ″valóban megette a madárfiókát?
          The cat   really   PRT-ate the nestling
          'Has the cat really eaten the nestling?'
      b. Hugó ″tényleg feldíszítette   a karácsonyfát?
          Hugo   really   PRT-decorated the Christmas tree
          'Has Hugo really decorated the Christmas tree?'

(71) ″Tényleg a macska ette meg a madárfiókát.
       Really   the cat   ate PRT the nestling
       'It was really the cat that ate the nestling.'

The role of these particles is quite transparent: they function as some kind of focus particles, modifying focused sentences. They typically modify propositions comprising a so-called verum focus as in the examples (68) and (69), but can appear with constituent focus as well (71). In my view, the sentence adverbs of the *biztosan*-type approximate the function that these particles fulfill, and it follows from their meaning: all of these epistemic speaker-oriented adverbs express the speaker's strong commitment to the truth of the proposition, so much so that they may directly take the special function of modifying a semantic identification. Kugler (2003: 49–50) performed an empirical test with native speakers concerning Hungarian epistemic adverbs ('modifier words' in her terminology) and the types of communicative attitude the speakers assign to them. Not surprisingly, the lexical entries investigated in the present chapter turned out to occupy the first or second position on her 'certainty scale'.

As regards the meaning of *verum*-focus, it emphasizes on the truth of the proposition; or in other words, it reasserts or denies the hearer's presupposition. It is also called *polarity focus* as it contrasts the interpretation of the whole sentence to its negation. The exact meaning of the following utterances is that Hugo did or did not miss the train – contrary to all expectations.

(72) a. *Hugó <″lekéste   a vonatot.>*
          Hugo   PRT-missed the train.'
          'Hugo did miss the train'

b. *Hugó <"nem késte le a vonatot.>*
   Hugo   not   missed PRT the train.'
   'Hugo did not miss the train'

Similarly to pragmatic particles, stressed sentence adverbs can adjoin to verum focus. Consequently, the primary stress will be assigned to the adverb itself.

(73) a. *Hugó <"biztosan lekéste a vonatot.>*
   Hugo   certainly PRT-missed the train.'
   'Hugo certainly did miss the train.'

b. *Hugó <"biztosan nem késte le a vonatot.>*
   Hugo   certainly not   missed PRT the train.'
   'Hugo certainly did not miss the train.'

The associated intonation pattern involves stress reduction (or syntactically motivated deaccentuation, cf. Varga 2002) after the major stress, in the same way as in contrastive focus structures. The only difference is that the major stress falls on the left edge of the predicate instead of a constituent moved to structural focus position (Spec, FP). In terms of Kenesei (1998: 74), verbs carrying phonological focus here are 'assertive' or truth-functional, that is, they are contrasted with the nonexecution of the same action.

The term 'verum focus' was introduced by Höhle (1992: 114), who claims that the focal stress on the verbs marks the presence of an illocutory predicate or operator VERUM. According to the definition given by Han and Romero (2004: 190), VERUM is a conversational epistemic operator that applies to a proposition p to yield a proposition that is true if the speaker is certain that p should be accepted as true and added to the common ground. This function is expressed through focal intonation on the finite verb also in Hungarian. However, there is a further issue: where it should be located in syntax. Han and Romero (2004: 192) claim that the VERUM operator is syntactically placed above C^0, but below Q, in the left periphery of the CP domain. Kenesei (1998: 75), treating Hungarian assertive focus, argues that instead of the (lexical) verb it is the Tense head that is marked for focus. As the verb has to move to Tense to check its φ-features, the head of the TP moving on into the head of the Focus Phrase carries along the verb adjoined to it.

The key question that concerns us here is the precise location of the verum feature or VERUM operator in syntax. The basis of Kenesei's approach is the unitary treatment of constituent focus and VERUM, in that they both are related to the focus phrase. Such an analysis, however, leaves open the question what ensures the PRT-verb surface order in the presence of 'assertive focus', contrary to the standard focus structures where the verb itself moves up into the Focus head (or, according to recent theories, to the non-neutral head, cf. Olsvay 2000;

É. Kiss 2006c), leaving behind the verb-modifier particle. In order to solve this problem it may be assumed that FP has an EPP-feature, so its specifier must be filled in any case. In the absence of a focused constituent, the PRT moves to satisfy such a requirement. The rule can be translated for analyses involving the non-neutral phrase: the VERUM will be associated with the non-neutral head (NN) or the focus head, and the FP projection, in order to be licensed, must contain some kind of phonologically realized element. It is a reasonable requirement, since focus intonation (primary stress followed by stress reduction) also needs a meaningful element to start from.[15]

A further difficulty arises when combining negation with focus. In Hungarian, negation usually triggers verb movement as well, but if negation has scope over focus, the verb does not move further than the focus head (or non-neutral head) as illustrated in (74). Consequently, the above assumptions allocating VERUM in the focus phrase will over-generate, producing sentences like (75), where the PRT-verb complex is intended to be a VERUM-focus, the adverb *biztosan* being adjoined to it.

(74)   *Nem Hugó találta el   a céltábla közepét.*
       Not Hugo hit   PRT the target in-the-middle
       'It was not Hugo who hit the bull's eye'

(75)   *[NegP *Nem* [FP *biztosan* [FP *eltalálta a céltábla közepét.*]]]
              not   certainly   PRT-hit the target in-the-middle
       'It's not certain that he hit the bull's eye'

Assuming that VERUM cannot be negated would be an easy way to solve our difficulties, but sentences like (48a), where negation obviously has scope over *biztosan*, provide a sufficient counter-example. Investigating biased yes/no questions with respect to negation and VERUM, Romero and Han (2002) confirm that there exists scopal ambiguity between them, schematized in (76).[16]

(76)   [not [VERUM *p*]]
       [VERUM [not *p*]]

The 'VERUM in FP approach' has an additional shortcoming: in case VERUM focus has scope over negation as in (73b), no phonologically realized material fills either the head or the specifier of the focus projection.

(77)   [FP biztosan [FP VERUM [NegP nem [NNP találta el . . .]]]
            certainly   not   hit   PRT (. . .)

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[15] Note that an additional rule is needed: The primary stress will be assigned to the first element of the extended focus phrase. If an adverb like *biztosan* is adjoined to FP, the adverb itself will be assigned primary stress.

[16] Negated VERUM can be found in Höhle (1992) as well.

In view of the above discussion, there is considerable evidence that Hungarian structural focus position and VERUM must be treated separately. Accordingly, I propose to introduce a distinct projection to house the operator, i.e. a VERUM phrase (VERUMP), which has a VERUM head of its own. VERUMP appears lower than the *SD/Force* head since a sentence extended with a VERUM operator can be questioned (cf. 4.2.2). On the other hand, it can be merged with both neutral and non-neutral predicates, that is, a PredP (73a), a NegP (73b) and even an FP (see (71) and (78) below). In the latter case, the focus-structure is extended by an additional VERUM operator located in VERUMP.

(78)   [_{VERUMP} *Biztosan* [_{FP} *Hugó találta el   a céltábla közepét.*]]
            certainly   Hugo hit   PRT the target in the middle
        'It was surely Hugo who hit the bull's eye'

Assuming that structural focus is a kind of identificational predicate (or operator) in Hungarian, the meaning of (78) asserts the truth of the identification. Thus, adverbs like *biztosan* (and the pragmatic particles), instead of being adjoined to the focus phrase, are located in VERUMP. It seems plausible to assume that the adverb is in an adjoined position here (rather than in the specifier), since the option of right-adjunction is also available (80).

(79)   *Biztosan a macska ette meg a madárfiókát.*
      certainly the cat   ate PRT the nestling
      'Certainly, it was the cat that ate the nestling.'

(80)   *A macska ette meg biztosan a madárfiókát.*
      the cat   ate PRT certainly the nestling
      'Certainly, it was the cat that ate the nestling.'

In case negation has scope over VERUM, that is, [not [VERUM *p*]] is to be derived, the verb moves to the higher Neg-head (or NN head), generating sentences like (81–82):

(81)   *Nem találta el biztosan a céltábla közepét.*
      Not hit PRT certainly the target in the middle
      'It is not certain that he hit the bull's eye'

(82)   *Nem találta biztosan el   a céltábla közepét.*
      not hit   certainly PRT the target in the middle
      'It is not certain that he hit the bull's eye'

Summarizing the above observations, the adverb *biztosan* and other sentence adverbs that show oscillation in picking up stress have two possible adjunction sites. If stressed (triggering stress reduction), they adjoin to the VERUM phrase; otherwise, they remain unstressed (or possibly have secondary stress) and oc-

cupy the higher position established for speaker-oriented sentence adverbs (SD, see section 3.3). Furthermore, the adverb *biztosan* 'certainly' proved to be unique in terms of ambiguity, yielding three interpretations for one and the same lexical entry. When describing the compositional rules that hold for the three different readings, three possible adjunction sites have been proposed above: the adverb can be adjoined to the predicate phrase directly (as a simple manner adverb), to the SD (as an epistemic modal adverb), and finally to the VERUM phrase. The real ambiguity observed in the postverbal neutralized prosodic context (48a) follows from the fact that in such cases negation may be positioned above two of these adjunction sites, hence not only does the manner adverb fall within its scope, but so does the VERUM modifier adverb. At the same time, in (48b), the real epistemic sentence adverb is outside the scope of negation, which is signalled by its independent intonational phrase and the insertion of pauses.

4.3.2.   *The individual cases of* feltétlenül*,* okvetlenül *and* mindenképpen

In sections 4.1 and 4.2.3 a small group of sentence adverbs was mentioned, namely the adverbs *mindenképpen* 'by all means', *feltétlenül*, *okvetlenül* 'definitely' (in the sense 'under any circumstances') which always seem to carry primary stress, having no unstressed counterpart in preverbal position. They are not akin to 'high adverbs' (associated with SD) because of their stress properties. They are not manner adverbs either because they cannot be focused (84).

(83)   *Lola ʺfeltétlenül   becsomagolja az ajándékokat.*
          Lola   by all means PRT-wraps   the gifts
          'Lola will wrap the gifts by all means'

(84)   **Lola ʺfeltétlenül   csomagolja be   az ajándékokat.*
          Lola   by all means wraps   PRT the gifts
          Intended: 'It is by all means that Lola will wrap the gifts'

They always seem to be adjoined to verum focus. The fact that they cannot modify a negated statement (85) can be due to their individual selectional restriction on negation (*[Neg]) since the adverbs themselves morphologically contain a negative element '-*lenül*'.

(85)   **Lola ʺfeltétlenül   nem csomagolja be   az ajándékokat.*
          Lola   by all means not wraps   PRT the gifts
          'Lola by all means will not wrap the gifts'

There is another semantic (or rather lexico-semantic) peculiarity of the members of this group: interestingly, they are not readily accommodated in past contexts.

(86)   ?*Lola ″feltétlenül   becsomagolta az ajándékokat.*
       Lola   by all means PRT-wrapped the gifts
       'Lola has wrapped the gifts by all means'

Based on its possible syntactic positions, the adverb *mindenképpen* 'by all means' is similar to quantifiers, and seem to be adjoined to PredP or NNP, from the left or right direction, respectively.[17] It is also subject to negative concord since the lexeme *mindenképpen* is replaced by its negative counterpart *semmiképpen* 'noways' (88).

(87)   *Lola ″mindenképpen becsomagolja az ajándékokat.*
       Lola   by all means PRT-wraps   the gifts
       'Lola will wrap the gifts by all means'

(88)   *Lola ″semmiképpen nem csomagolja be   az ajándékokat.*
       Lola noways   not wraps   PRT the gifts
       'Lola will wrap the gifts in no way'

The quantifier-like analysis of this adverb is also motivated by its morphological make-up: *minden-képpen* (approx. 'all+manner/way+by').

5.   Conclusion

In this paper I have discussed the syntactic and prosodic features of Hungarian predicational adverbs, paying special attention to ambiguous adverbs with both manner and clausal readings. The crucial idea followed throughout this paper was the assumption that the stress properties and prosodic integration of such adverbs can be derived from their syntactic position in the same way as in case of ordinary adverbs. Since ambiguous adverbs are semantically underspecified, they have a number of possible sites to be adjoined to, and their proper interpretation will depend on the structural level at which their adjunction takes place. In postverbal position, however, due to the neutralized prosodic environment and free word order, the normal disambiguating strategies fail to function. The sentential reading of an ambiguous adverb becomes available only

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[17]It is long-standing observation that Hungarian quantifiers are situated to the left of Focus and to the right of topic(s), c-commanding their scope at surface structure. The field available for universal and various distributive quantifier phrases (QP) was referred to as the 'quantifier field' in the earlier literature (É. Kiss 1994), which later corresponded to the (recursive) DistP of Szabolcsi (1997) analysis. Recently, the adjunction theory of quantifiers has been revived, which assumes that Hungarian quantifiers can be left- or right-adjoined to PredP (in neutral sentences) and the so-called non-neutral phrase (NNP).

by blocking the fusion of the intonational phrases, that is, by preserving the original intonational independence of the high adjoined adverb.

Observing the behavior of the Hungarian adverb (*biztosan* 'certainly'), a sort of three-way ''ambiguity'' was discovered. Investigating its distributional and stress properties (and those of a certain group of epistemic adverbs with similar meaning), a special function and adjunction site was distinguished: it was proven not to occupy a canonical sentence adverb position, but rather to appear at a lower site, modifying the so-called verum focus. Such an analysis can account for this adverb's primary stress, capacity of being questioned, and exceptional relation to negation.