

1 Adverbial (dis)ambiguities. Syntactic and prosodic 2 features of ambiguous predicational adverbs 3

4
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6

7 8 9 **1. Introduction** 10

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

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

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

Adverbs and Adverbial Adjuncts at the Interfaces, 101–130

Katalin É. Kiss (ed.)

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1 cating a verum phrase and a related adjunction site specifically for this par-
2 ticular group of adverbs.

3 The chapter is organized as follows. Section 2 presents the theoretical back-
4 ground, the syntactic and semantic models applied throughout the paper. Sec-
5 tion 3 discusses Hungarian sentence adverbs with particular attention to am-
6 biguous predicational adverbs having both clausal and manner readings: their
7 distribution, their interaction with intonational patterns, their distinct struc-
8 tural positions, and finally, the consequences of right-adjunction, namely, the
9 way that postverbal ambiguous adverbs are disambiguated by prosodic means.
10 Section 4 is devoted to the special case of ambiguity mentioned above. The case
11 of the adverb *biztosan* ‘certainly’ illustrates a whole class of sentence adverbs
12 that show irregular prosodic and distributional properties. The structural and
13 functional analysis of the phenomenon suggests that these adverbs can be ad-
14 joined lower in course of the derivation than canonical sentence adverbs and
15 in this position they modify a special type of focus structure, the so-called as-
16sertive or verum focus. The intriguing three-way “ambiguity” of *biztosan* ‘cer-
17 tainly’ is derived from the three possible adjunction sites available for it, while
18 my analysis also accounts for the different prosodic properties of the sentence
19 types including such adverbs.

20

21

22 **2. Theoretical background**

23

24 Bellert (1977) refines Jackendoff’s (1972) classification of adverbs (VP-adverbs,
25 subject-oriented, speaker-oriented) subdividing adverb classes into more refined
26 categories on a semantic basis, and taking into account distributional proper-
27 ties other than position alone. I will rely on Bellert’s assumptions regarding pri-
28 marily the subclasses of the speaker-oriented group, which she shows not to be
29 a homogeneous one.

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

41

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

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

- 5 (1) discourse-oriented > evaluative > modal > evidential > subject-oriented >
6 negative > manner
7

8 This hierarchy practically corresponds to the one established by Cinque (1999:
9 11–13) for “higher AdvPs”:¹

- 10 (2) speech act/pragmatic adverbs > evaluative > evidential modal > epistemic
11 modal > ‘forse’ > subject-oriented
12

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

- 16 (3) a. *Hugó szerencsére valószínűleg feldíszítette a karácsonyfát.*
17 Hugo luckily probably decorated the Christmas tree
18 ‘Luckily, Hugo probably has decorated the Christmas tree.’
19 b. **Hugó valószínűleg szerencsére feldíszítette a karácsonyfát.*
20 Hugo probably luckily decorated the Christmas tree
21 Intended: ‘Probably, Hugo luckily has decorated the Christmas tree.’
22
- 23 (4) *Hugó valószínűleg feldíszítette szerencsére a karácsonyfát.*
24 Hugo probably decorated luckily the Christmas tree
25 ‘Luckily, Hugo probably has decorated the Christmas tree.’

26 Hungarian adverbs may appear both preverbally and postverbally, but only
27 their preverbal order is strictly fixed. In the postverbal field the order of the
28 elements is relatively free in spite of the fact that the adverbs maintain their
29 scope, and usually their stress properties, as well. A postverbal sentence adverb
30 may have scope over a preverbal one (4), and two postverbal adverbs may also
31 show scope hierarchy independently of their position and relative order in the
32 sentence.
33

34
35
36 ¹Note, however, that the order of evidentials and epistemic modals is reversed in the
37 two models. In my view, this might be due to a categorial uncertainty concerning evi-
38 dentials. For the concept of evidentiality, see the special issue of *Journal of Pragmatics*
39 (33, 2001) with seven selected papers on this topic, especially that of Dendale and Tas-
40 mowsky, which summarizes the possible relation types between the notions of evi-
41 dentiality and modality, and how these terms are used in the relevant literature.

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

20 **3. Ambiguous predicational adverbs**

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

35 **3.1. Properties of sentence adverbs versus manner adverbs in** 36 **preverbal position**

38 *3.1.1. Word order*

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

1 Manner adverbs:

2 (5) *Hugó gyönyörűen feldíszítette a karácsonyfát.*
 3 Hugo beautifully decorated the Christmas tree
 4 ‘Hugo has decorated the Christmas tree beautifully.’

5 (6) *Hugó szorosan megkötötte a cipőfűzőjét.*
 6 Hugo tightly tied his shoelaces.
 7 ‘Hugo has tied his shoelaces tightly.’
 8

9 Sentence adverbs:

10 (7) *Hugó valószínűleg feldíszítette a karácsonyfát.*
 11 Hugo probably decorated the Christmas tree
 12 ‘Hugo has probably decorated the Christmas tree.’

13 (8) *Hugó bizonyosan megkötötte a cipőfűzőjét.*
 14 Hugo undoubtedly tied his shoelaces
 15 ‘Hugo has undoubtedly tied his shoelaces.’
 16

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

22 (9) *(Valószínűleg) Hugó (valószínűleg) feldíszítette (valószínűleg)*
 23 probably Hugo probably decorated probably
 24 *a karácsonyfát (valószínűleg).*
 25 the Christmas tree probably
 26

27 (10) *(*Gyönyörűen) Hugó (gyönyörűen) feldíszítette (gyönyörűen)*
 28 beautifully Hugo beautifully decorated beautifully
 29 *a karácsonyfát (gyönyörűen).*
 30 the Christmas tree beautifully
 31

32 (11) *(*Szorosan) Hugó (szorosan) megkötötte (szorosan)*
 33 tightly Hugo tightly tied tightly
 34 *a cipőfűzőjét (szorosan).*
 35 his shoelaces tightly
 36

37 3.1.2. Appearance in focus position

38
 39 A more reliable syntactic test to identify sentence adverbs is their (dis)ability of
 40 being focused. While manner adverbs ((12)–(13)) as well as so-called framing
 41

1 adverbials, temporals and locatives (14) may occur in the structural focus posi-
 2 tion, subject- and speaker-oriented adverbs (15) cannot be focused (Of course,
 3 if the adverb in question is ambiguous, in focus position only the manner read-
 4 ing is available.):²

- 5 (12) *Hugó* <"gyönyörűen díszítette fel a karácsonyfát.>
 6 Hugo beautifully decorated PRT the Christmas tree
 7 'Hugo decorated the Christmas tree BEAUTIFULLY.'
 8
- 9 (13) *Hugó* <"szorosan kötötte meg a cipőfűzőjét.>
 10 Hugo tightly tied PRT his shoelaces
 11 'Hugo tied his shoelaces TIGHTLY.'
- 12 (14) *Hugó* <"tegnap/három óra alatt/23-án/most/a nagszobában
 13 Hugo yesterday/in three hours/on the 23rd/now/in the living room
 14 díszítette fel a karácsonyfát.>
 15 decorated PRT the Christmas tree
 16 'Hugo decorated the Christmas tree YESTERDAY/IN THREE
 17 HOURS/ON THE 23rd/NOW/IN THE LIVING ROOM.'
- 18 (15) **Hugó* <"bizonyára/valószínűleg/szerencsére díszítette fel
 19 Hugo surely/probably/luckily decorated PRT
 20 a karácsonyfát.>
 21 the Christmas tree
 22

23 3.1.3. Stress

24
 25 Neutral sentences in Hungarian are characterized by evenly distributed (non-
 26 contrastive) stress on every constituent, where each of the phonological phrases
 27 has a similar falling contour. After a structural focus bearing primary stress,
 28 however, stress reduction of the other constituents may be observed, moreover,
 29 the finite verb must be entirely destressed. Other preverbal operators may dis-
 30 play the same effects (Hunyadi 2002; Vogel and Kenesei 1987). As stressing the
 31 topic constituent(s) is optional, the characteristic intonation contour of neutral
 32 sentences starts off with the first obligatory primary stress on PredP, whose
 33 head position is occupied by the verb, and whose specifier may be filled by a
 34 particle or other so-called 'verb-modifier'.³ If an adverb directly precedes a
 35

36
 37 ²That the adverbs are located in focus position in these examples is shown by the re-
 38 versed order of the verb-modifier particle (PRT) and the verb, in addition to the post-
 39 focus stress reduction signaled here by angle brackets.

40 ³Verb-modifiers are secondary predicates expressed by a verbal particle or a bare nom-
 41 inal complement directly preceding the verb (consult É. Kiss 2006a for a detailed analy-
 sis). For Hungarian sentence structure see section 3 of Chapter 2 with further references.

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

5 (16) *Hugó "szorosan "megkötötte a "cipőfűzőjét.*
 6 Hugo tightly PRT-tied his shoelaces
 7 'Hugo has tied his shoelaces tightly.'

8 (17) *Hugó valószínűleg "megkötötte a "cipőfűzőjét.*
 9 Hugo probably PRT-tied his shoelaces
 10 'Hugo has probably tied his shoelaces.'

11 (18) **Hugó szorosan "megkötötte a "cipőfűzőjét.*
 12 Hugo tightly PRT-tied his shoelaces
 13

14 3.2. Ambiguous adverbs preverbally and their stress properties

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

17 (19) *Hugó "okosan "megválaszolta a "kérdést. (manner)*
 18 Hugo cleverly PRT-answered the question
 19 'Hugo has answered the question cleverly.' i.e. Hugo's answer was clever.
 20

21 (20) *Hugó (^o)okosan "megválaszolta a "kérdést. (clausal)*
 22 Hugo cleverly PRT-answered the question
 23 'Cleverly, Hugo has answered the question.' i.e. It is clever of Hugo to
 24 have answered the question (while the content of his answer may have
 25 been unintelligent).
 26

27 As the primary stress falls on the beginning of the PredP/FocP, if the adverb
 28 bears only secondary stress or no stress at all, it will be interpreted as a sentence
 29 adverb because sentence adverbs tend to be unstressed. In (20) the adverb
 30 *okosan* is a subject-oriented adverb. While an ambiguous adverb like *okosan*
 31 may precede the topic (21) and may appear in focus position (22), in these posi-
 32 tions, as expected, only one of the readings is available in accordance with the
 33 restrictions detailed above:
 34

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

38
 39
 40 ⁴Primary stress will be indicated by a double stress mark ("), secondary stress by a
 41 single stress mark (') and non-stress will remain unmarked.

- 1 (22) *Hugó <okosan válaszolta meg a kérdést.>* (only manner reading)
 2 Hugo cleverly answered PRT the question
 3 ‘It was in a clever manner that Hugo answered the question.’

4
 5 Nonetheless, we need not suppose two homonymous adverbs in the lexicon.
 6 Ernst (2002: 38) claims that the lexical entry for an adverbial may be under-
 7 specified so that it may combine with different semantic objects according to
 8 different compositional rules. The fact that *okosan* is able to take two types of
 9 semantic arguments results in two different readings.

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

- 18
 19 (23) a. *Lola "természetesen" végigvonult a "színpadon.* (manner)
 20 Lola naturally along-walked the stage
 21 ‘Lola walked along the stage naturally.’
 22 b. *Lola ^(o)természetesen "végigvonult a "színpadon.* (clausal)
 23 Lola naturally along-walked the stage
 24 ‘Naturally, Lola walked along the stage’
 25
 26 (24) a. *?Hugó "szokatlanul" feldíszította a "karácsonyfát.* (manner)
 27 Hugo oddly PRT-decorated the Christmas tree
 28 ‘Hugo decorated the Christmas tree oddly’
 29 b. *Hugó <"szokatlanul díszítette fel a "karácsonyfát.>* (manner)
 30 Hugo oddly decorated PRT the Christmas tree
 31 ‘Oddly, Hugo decorated the Christmas tree.’
 32 c. *Hugó ^(o)szokatlanul "feldíszította a "karácsonyfát.* (clausal)
 33 Hugo oddly PRT-decorated the Christmas tree
 34 ‘Oddly, Hugo decorated the Christmas tree.’
 35
 36 (25) a. *Lola "röviden" elmesélte a "kalandjait.* (manner)
 37 Lola briefly PRT-narrated her adventures
 38 ‘Lola narrated her adventures briefly.’
 39 b. *Röviden Lola "elmesélte a "kalandjait.* (clausal)
 40 briefly Lola PRT-narrated her adventures
 41 ‘Briefly, Lola narrated her adventures.’

1 3.3. Defining the adjunction sites for adverbs

2

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

11

- 12 (26) *Lola (okosan_{CLAUSAL}) mindenkinek (okosan_{MANNER}) megválaszolta*
 13 *Lola cleverly to everyone cleverly answered*
 14 *a kérdést.*
 15 *the question*
 16 *‘(Cleverly,) Lola has answered the question to everyone (cleverly).’*

17

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

24

- 25 (27) a. *Lola okosan mindenkinek elküldte a levelet.*
 26 *Lola cleverly to everyone PRT-sent the letter*
 27 *‘Lola was clever (enough) to send everyone the letter.’*
 28 b. **Lola mindenkinek okosan elküldt a levelet.*
 29 *Lola to everyone cleverly PRT-sent the letter*
 30 *Intended: ‘Lola has sent everyone the letter cleverly.’*
 31 c. **Lola mindenkinek <okosan küldte el a levelet.>*
 32 *Lola to everyone cleverly sent PRT the letter*
 33 *Intended: ‘It was in a clever manner that Lola sent everyone*
 34 *the letter.’*

34

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

38

- 39 (28) *Hugó nem válaszolta meg okosan a kérdést. -|→*
 40 *‘Hugo did not answer the question cleverly’*
 41 *Hugó nem válaszolta meg a kérdést.*
‘Hugo did not answer the question’

- 1 (29) *Hugó okosan nem válaszolta meg a kérdést.* →
 2 ‘Cleverly, Hugo did not answer the question’
 3 *Hugó nem válaszolta meg a kérdést.*
 4 ‘Hugo did not answer the question’
 5
 6 (30) *Hugó nem díszítette fel szokatlanul a karácsonyfát.* –|→
 7 ‘Hugo did not decorate the Christmas tree oddly’
 8 *Hugó nem díszítette fel a karácsonyfát.*
 9 ‘Hugo did not decorate the Christmas tree’
 10
 11 (31) *Hugó szokatlanul nem díszítette fel a karácsonyfát.* →
 12 ‘Oddly, Hugo did not decorate the Christmas tree’
 13 *Hugó nem díszítette fel a karácsonyfát.*
 14 ‘Hugo did not decorate the Christmas tree’

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

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

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

1 hypothesis' by making a distinction between the head that encodes 'force' and
 2 the head that serves merely to subordinate the clause (Sub). As she puts it, "the
 3 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.

9 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.

17 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.

30 3.4. Adverbs in postverbal position

32 3.4.1. *Non-ambiguous adverbs postverbally*

34 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

39 ⁵Topics 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.

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

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

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

14 (34) a. <"Hugó kötötte meg ^(◊)szorosan a cipőfűzőjét.>
 15 Hugo tied PRT tightly his shoelaces
 16 'It was Hugo who tied his shoelaces tightly.'
 17 b. <"Hugó kötötte meg a cipőfűzőjét ^(◊)szorosan.>
 18 Hugo tied PRT his shoelaces tightly
 19 'It was Hugo who tied his shoelaces tightly.'

20 (35) a. <"Hugó díszített fel ^(◊)valószínűleg a karácsonyfát.>
 21 Hugo decorated PRT probably the Christmas tree
 22 'Probably, it was Hugo who decorated the Christmas tree.'
 23 b. <"Hugó díszítette ^(◊)valószínűleg fel a karácsonyfát.>
 24 Hugo decorated probably PRT the Christmas tree
 25 'Probably, it was Hugo who decorated the Christmas tree.'
 26 c. <"Hugó díszítette fel a karácsonyfát ^(◊)valószínűleg.>
 27 Hugo decorated PRT the Christmas tree probably
 28 'Probably, it was Hugo who decorated the Christmas tree.'

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

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

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

36 The fact that neither prosody nor word order signals how high the sentence
 37 adverb is adjoined (above NegP, supposedly to the SD projection) stirs up no
 38 storm, since non-ambiguous adverbs are lexically conditioned to select for a
 39

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

3
4 3.4.2. *Ambiguous adverbs postverbally*
5

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

12
13 (38) *Hugó nem válaszolt okosan a kérdésre.*
14 Hugo not answered cleverly to the question
15 ‘Hugo did not answer the question cleverly.’

16 (39) *Hugó nem válaszolt szokatlanul a kérdésre.*
17 Hugo not answered oddly to the question
18 ‘Hugo did not answer the question oddly.’
19

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

23 (40) *Hugó nem válaszolt □ okosan □ a kérdésre.*
24 Hugo not answered cleverly to the question
25 ‘Cleverly, Hugo did not answer the question.’
26

27 (41) *Hugó nem válaszolt □ szokatlanul □ a kérdésre.*
28 Hugo not answered oddly to the question
29 ‘Unusually, Hugo did not answer the question.’

30 The same phenomenon may be observed under identificational focus: an un-
31 ambiguous evaluative sentence adverb can freely appear in its unmarked posi-
32 tion after the topic (42a), or else in postverbal position (with the same senten-
33 tial scope), and at the same time remain unstressed (42b). On the other hand,
34 an ambiguous right-adjoined adverb will be interpreted in one way only: in
35 the scope of focus with no clausal reading available (43).
36

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

- 1 b. *Hugó* <az 'első kérdést válaszolta meg szerencsére
2 Hugo the first question answered PRT luckily
3 *az elnöknek.*>
4 to the chairman
5 ‘Luckily, it was the first question that Hugo answered to the
6 chairman.’
- 7 (43) a. *Hugó okosan* <az 'első kérdést válaszolta meg
8 Hugo cleverly the first question answered PRT
9 *az elnöknek.*> (only clausal)
10 to the chairman
11 ‘Cleverly, it was the first question that Hugo answered to the
12 chairman.’
- 13 b. *Hugó* <az 'első kérdést válaszolta meg okosan
14 Hugo the first question answered PRT cleverly
15 *az elnöknek.*> (only manner)
16 to the chairman
17 ‘It was the first question that Hugo answered to the chairman
18 cleverly.’
- 19 c. *Hugó* <az 'első kérdést válaszolta meg □ okosan □ az elnöknek.>
20 Hugo the first question answered PRT cleverly the chairman
21 (clausal)
22 ‘Cleverly, it was the first question that Hugo answered to the
23 chairman.’

26 3.4.3. IP restructuring and its blocking

28 I propose that sentence adverbs, either left-adjoined or right-adjoined to a pro-
29 jection, constitute an intonational phrase (IP) of their own. Nonetheless, basic
30 IPs may undergo restructuring under certain circumstances (cf. the ‘IP restruc-
31 turing rule’ of Vogel and Kenesei 1987: 259–260 with further references), which
32 means that shorter IPs to the right of a constituent marked [+SC]⁶ may option-
33 ally be joined into a larger IP.

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

37 ⁶According to their terminology (p. 255), [+SC] marks quantifiers with the widest
38 scope. As far as I can judge, operators in general are included in their rule, so my follow-
39 ing examples with negation are equally convenient to demonstrate the phenomenon. The
40 same thing would happen, of course, in the presence of a focus construction. The origi-
41 nal idea for IP restructuring comes from Nespors and Vogel 1986.

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

- 5 (44) a. [Hugó]_{IP} [nem válaszolt a kérdésre]_{IP} [szerencsére]_{IP}
 6 Hugo not answered the question luckily
 7 b. [Hugó]_{IP} [nem válaszolt a kérdésre szerencsére]_{IP}
 8 Hugo not answered the question luckily
 9 c. [Hugó]_{IP} [nem válaszolt szerencsére a kérdésre]_{IP}
 10 Hugo not answered luckily the question
 11

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

- 28 (45) a. [Hugó]_{IP} [nem válaszolt a kérdésre]_{IP} [szokatlanul]_{IP}
 29 Hugo not answered the question unusually
 30 b. [Hugó]_{IP} [nem válaszolt]_{IP} [szokatlanul]_{IP} [a kérdésre]_{IP}
 31 Hugo not answered unusually the question
 32

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

39
 40 ⁷For a detailed account of Hungarian intonational patterns and stress assignment,
 41 consult Varga 2002.

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

14 4. Multiple “ambiguity”: the case of stressed sentence adverbs

17 4.1. Prosody and interpretation

18 Surprisingly enough, there are adverbs in Hungarian that show ambiguity also
 19 in their sentence adverb use. In (46a) and (46b), *biztosan* ‘surely, certainly’ has
 20 a manner reading. On the one hand, it is manifested by its position on the left
 21 edge of the predicate (46a); on the other hand, the adverb may optionally oc-
 22 cupy the focus position as well (46b). The other two sentences below contain
 23 the same adverb with a sentential reading, but with a slight difference in mean-
 24 ing: (46c) expresses strong probability, while (46d) actual certainty.⁹ It is the
 25 prosody that disambiguates the two readings: the sentence adverb carries pri-
 26 mary stress in (46d), just like a manner adverb in such a position, but, in addi-
 27 tion, stress reduction may be observed in the subsequent domain – signaled
 28 here by angle brackets.

30
 31 ⁸Varga (2002: 6), indeed, proposed a slight modification of T-model, first of all be-
 32 cause of Hungarian yes-no questions which are syntactically identical to their declarative
 33 counterparts and are distinguished only by their fixed intonation. In his view, this fact
 34 shows the special contribution of intonation to the full meaning of the utterance. As inter-
 35 rogative intonation may be easily derived by introducing a phonologically null ‘question
 36 operator’, his argument seems superfluous from the point of view of our investigation.

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

- 1 (46) a. *Hugó "biztosan "eltalálta a "céltábla "közepét.* (manner)
 2 Hugo confidently hit the target in the middle
 3 'Hugo hit the bull's eye confidently.'
- 4 b. *Hugó <"biztosan találta el a céltábla közepét.>* (manner)
 5 Hugo confidently hit PRT the target in the middle
 6 'It was confidently that Hugo hit the bull's eye.'
- 7 c. *Hugó 'biztosan "eltalálta a "céltábla "közepét.* (clausal₁: probability)
 8 'Very probably, Hugo hit the bull's eye.'
- 9 d. *Hugó <"biztosan eltalálta a céltábla közepét.>* (clausal₂: certainty)
 10 'Certainly, Hugo hit the bull's eye.'

11 When negated, the clausal and manner readings show the contrast already dem-
 12 onstrated in section 3.3, but now an additional property may be observed: the
 13 implications of the two negated sentences containing these slightly different sen-
 14 tence readings will not be the same, either:
 15

- 16 (47) a. *Hugó 'biztosan "nem találta el a céltábla közepét. -|→*
 17 'Hugo very probably did not hit the bull's eye'
 18 *Hugó nem találta el a céltábla közepét.*
 19 'Hugo did not hit the bull's eye.'
- 20 b. *Hugó "biztosan nem találta el a céltábla közepét. →*
 21 'Hugo certainly did not hit the bull's eye'
 22 *Hugó nem találta el a céltábla közepét.*
 23 'Hugo did not hit the bull's eye.'

24 Moreover, in postverbal position, the unstressed adverb can be interpreted not
 25 only as a manner adverb, but also as a sentence adverb (48a), at least in the
 26 sense introduced in (46d). To evoke the other clausal reading (that of strong
 27 probability) the above mentioned pauses should be applied (48b). Note that in
 28 (48) the negation has scope over the adverb (Neg>*biztosan*), unlike to (47)
 29 where it was the other way round (*biztosan*>Neg).
 30

- 31 (48) a. *Hugó "nem találta el biztosan a céltábla közepét.*
 32 Hugo not hit PRT certainly the target in the middle
 33 'Hugo did not hit the bull's eye confidently.' (manner) or
 34 'It's not certain that Hugo hit the bull's eye' (clausal₂)
- 35 b. *Hugó "nem találta el □ biztosan □ a céltábla közepét.* (clausal₁)
 36 Hugo not hit PRT certainly the target in the middle
 37 'Hugo, very probably, did not hit the bull's eye.'

38 The question arises whether this type of ambiguity should be treated as an iso-
 39 lated case, or whether it is possible to identify a certain class of adverbs of the
 40
 41

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

- 9
 10 (49) a. *Hétvégére* *"feltétlenül elolvad a hó.*
 11 By the weekend definitely melt the snow
 12 ‘There’s no doubt, the snow will have been melted by the weekend’
 13 b. **Hétvégére feltétlenül "elolvad a hó.*
- 14 (50) a. *Hugó "okvetlenül eljegyezi Lolát.*
 15 Hugo definitely is engaged to Lola
 16 ‘Hugo will be engaged to Lola under any circumstances.’
 17 b. **Hugó okvetlenül "eljegyezi Lolát.*
 18

19 In addition, there are further adverbs that oscillate between being stressed or
 20 not. It is notable that even though they are not ambiguous in respect of the
 21 clausal/manner opposition (having an exclusively sentential function), they show
 22 the same difference in meaning (strong probability vs. certainty) as *biztosan* in
 23 its sentential use:
 24

- 25 (51) a. *A macska "kétségtelenül megette a madárfiókát.*
 26 the cat undoubtedly PRT-ate the nestling
 27 ‘There’s no doubt that the cat has eaten the nestling’
 28 b. *A macska 'kétségtelenül "megette a madárfiókát.*
 29 the cat undoubtedly PRT-ate the nestling
 30 ‘The cat very likely has eaten the nestling’
 31

32 The problem is how to specify the common features of this special group of
 33 adverbs. They all seem to belong to the class of epistemic modals since they ex-
 34 press the speaker’s commitment to the truth of the proposition based on his/her
 35 own belief or evidence. Shall we label them directly as *evidential* adverbs? For
 36 the moment, it can be posited that they all come near ‘certainty’ in their mean-
 37 ing, and it is this semantic characteristic that contributes to their special behav-
 38 ior. In the next section it will be demonstrated that beyond admitting stress
 39 assignment, such adverbs are capable of being used in syntactic environments
 40 that are normally not available for the members of their class.
 41

1 4.2. Distribution

2

3 4.2.1. General distributional restrictions

4

5 A rather intriguing property of the members of this special class of stressed sen-
6 tence adverbs is that they also seem to escape further generalizations estab-
7 lished for speaker-oriented adverbs.

8 Bellert (1977) observes that speaker-oriented adverbs such as evaluatives
9 (*fortunately*), evidentials (*evidently*) and modals (*possibly*) have a rather re-
10 stricted distribution: they are degraded in questions, imperatives and antecede-
11 dents of conditionals, and they do not occur in the scope of negation. Discus-
12 sioning the domains that resist such adverbials, Nilsen (2004) proposes an analysis
13 of speaker-oriented adverbs that treats them as positive polarity items (PPIs),
14 since they are excluded from the same types of environments that license nega-
15 tive polarity items (NPIs). Nilsen interprets the restrictions on sentence adverbs
16 as a consequence of the general restrictions on PPIs. According to Haegeman
17 (2006: 1653), however, the restrictions must have another source, since the
18 relevant class of speaker-oriented adverbials is banned from a wider range of
19 adverbial clauses (certain temporal adverbial clauses, purpose clauses, etc.),
20 which are not all NPI-licensing contexts. Further, Haegeman demonstrates
21 that there are cases where these adverbial clauses admit speaker-oriented ad-
22 verbs, and shows that these apparent exceptions are due to the fact that such
23 adverbial clauses are *discourse-related*, rather than to their polarity. She pro-
24 poses that discourse-related conditionals (and adverbial clauses) have a more
25 complex functional structure than their event-related counterparts, and they
26 are adjoined to the host clause at a much later point in the derivation. Follow-
27 ing Declerck and Reed (2001: 83), Haegeman states (2006: 1655) that these
28 more complex, peripheral conditional clauses are echoic in nature. Meanwhile,
29 Christopher Piñón (p.c.) explains the distributional restrictions from a different
30 point of view: in his semantic approach, modal adverbs can modify *assertions*,
31 and the property that speaker-oriented adverbials are banned from contexts
32 like questions, conditionals, etc. follows from the fact that none of those con-
33 texts are assertive.

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

41

1 4.2.2. *The exceptional behavior of stressed sentence adverbs in questions*

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

8
 9 (52) *Has John suprisingly arrived?

10 (53) **Hugó szerencsére megérkezett?*

11 Hugo fortunately arrived

12 Intended: 'Has Hugo fortunately arrived?'

13 (54) ?*Hugó szerencsére "megtalálta a gyűrűjét?*

14 Hugo fortunately PRT-found his ring

15 Intended: 'Has Hugo fortunately found his ring?'

16 (55) ?*Hugó "megválaszolta szerencsére a kérdést?*

17 Hugo PRT-answered fortunately the question

18 Intended: 'Did Hugo fortunately answer the question?'

19
 20 (56) *Has John probably come?

21 (57) **Hugó valószínűleg megérkezett?*

22 Hugo probably arrived

23 Intended: 'Has Hugo probably arrived?'

24
 25 Even if these sentences are accepted, one has to consider them echoic, i.e. closely
 26 related to the discourse. Unfortunately, the judgment whether a proposition is
 27 echoic or not proves to be somewhat problematic, since there is no straight-
 28 forward test to decide it.¹¹

29
 30 ¹⁰Ramat – Ricca (1998) managed to find examples for evaluatives and modals in
 31 questions in certain European languages, but the occurrences cannot be extended to
 32 whole classes of adverbs, and judgments are marginal even in the isolated cases.

33 ¹¹The sentences become more readily interpretable with a special intonation typical
 34 of declaratives preceding tag questions, where the end of the character contour does
 35 not fall towards the baseline (i). Another possibility would be an even intonation with
 36 rising intonation sequences and primary stress on each word of the sentence, which ex-
 37 presses 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.

38 (i) *Hugó szerencsére megválaszolta a kérdést, nem?*

39 'Hugo luckily answered the question, didn't he?

40 (ii) *"Hugó "váratlanul "megválaszolta a "kérdést?*

41 Hugo unexpectedly answered the question

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

3
4 (58) *Hugó "biztosan megszerelt a mosógépet?*
5 Hugo certainly repaired the washing-machine
6 ‘Is it certain that Hugo has repaired the washing-machine?’

7
8 (59) *"Biztosan megveszed a jegyeket?*
9 Certainly buy-2sg the tickets
10 ‘Is it certain that you are going to buy the tickets?’

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

15
16 (60) *Hugó "okvetlenül feldíszíti a karácsonyfát?*
17 Hugo definitely PRT-decorate the Christmas tree
18 ‘Is it definite that Hugo will decorate the Christmas tree?’

19
20 (61) *A macska "kétségkívül megette a madárfiókát?*
21 the cat undoubtedly PRT-ate the nestling
22 ‘Is there no doubt that the cat has eaten the nestling?’

23
24
25 4.2.3. *The exceptional appearance of stressed sentence adverbs in the scope*
26 *of operators*

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

33
34 (62) *Lola nem érkezett meg biztosan.*
35 Lola not arrived PRT certainly
36 ‘It is not certain that that Lola has arrived.’ or ‘It is not true that Lola
37 has certainly arrived.’

38
39 (63) *Hugó nem házasodik meg feltétlenül.*
40 Hugo not be married PRT inevitably
41 ‘Hugo won’t inevitably be married.’

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

8 (64) *Hugó nem feltétlenül házasodik meg.*
 9 Hugo not necessarily be married PRT
 10 ‘Hugo won’t be married inevitably.’
 11

12 The same feature cannot be observed with the ‘*biztosan*’ type.

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

18
 19

20 4.3. Adjunction sites for stressed sentence adverbs

21

22 In the following section, a unitary syntactic analysis will be provided to ac-
 23 count for the special behaviour of certain Hungarian (ambiguous) sentence ad-
 24 verbs reviewed here for the sake of explicitness. These adverbs carry primary
 25 stress and trigger stress reduction in their c-command domain, they can appear
 26 in questions and other syntactic environments otherwise inaccessible to sen-
 27 tence adverbs, and, as regards their lexical semantics, they all express some
 28 kind of ‘certainty’ on behalf of the speaker, at least in one of their uses.

29
 30

31 4.3.1. *Adjunction to verum focus*

32

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

1 hierarchy and occupy an alternative position. It appears to dominate the pred-
 2 ication part (PredP in neutral sentences and FocP/NegP in non-neutral ones¹²)
 3 directly, as a consequence of which the ambiguous adverb in its scope can only
 4 be interpreted as a manner adverb (65). The fact that no clausal reading is
 5 available here becomes clear in (66), where the manner interpretation is ex-
 6 cluded for lexical reasons.¹³ Since the ambiguous adverb *okosan* ‘cleverly’
 7 has another (subject-oriented) interpretation, one would expect the adverb to
 8 figure as a sentential one, but in such a context that reading does not become
 9 available.

10 (65) *Hugó "biztosan okosan megválaszolta a kérdést.
 11 Hugo certainly cleverly answered the question
 12 Intended: ‘It is certain that Hugo was clever for having answered the
 13 question’ (with clausal₂ ‘certainty’ reading)

14 (66) *Lola "biztosan okosan elküldte a levelet.
 15 Lola certainly cleverly PRT-sent the letter.
 16 Intended: ‘It is certain that Lola was clever (enough) to send the letter.’
 17

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

23 (67) Hugó okosan "biztosan megvette már a vonatjegyeket.
 24 Hugo cleverly certainly PRT-bought already the railway tickets
 25 ‘It is clever of Hugo to have certainly bought the railway tickets’
 26

27 Based on the data shown so far, I propose that *biztosan* and the other major-
 28 stressed sentence adverbs are adjoined exclusively to propositions involving a
 29 so-called verum focus (to be elaborate below). As a matter of fact, there is
 30 group of Hungarian pragmatic/modal particles¹⁴ (*valóban/tényleg/csakugyan/*
 31 *igazán*, all of them meaning ‘indeed, really’) whose properties and function are
 32 comparable to those of the sentence adverbs under investigation. They are ob-
 33 ligatorily stressed (see (68) and (69)), can appear in questions and imperatives
 34 (70), and cannot be focused but can modify a focus constituent (71):

35
 36 ¹²For the functional projections recognized for Hungarian see É. Kiss (2006c) and
 the introductory chapter of that volume.

37
 38 ¹³(65) and (66) would be grammatical with primary stress on the finite verb. In that
 39 case *biztosan* would be interpreted in its strong probability (clausal₁) meaning, or else
 with a narrow scope spanning over the subject-oriented *okosan* only.

40
 41 ¹⁴The term *pragmatic particle* is used by Kugler (2003, 44), while Kiefer (1988) calls
 them *modal particles*.

- 1 (68) a. *A macska valóban "megette a madárfiókát.
 2 b. A macska "valóban megette a madárfiókát.
 3 the cat really PRT-ate the nestling
 4 'The cat has really/in fact eaten the nestling.'
- 5 (69) a. *Hugó tényleg "feldíszítette a karácsonyfát.
 6 b. Hugó "tényleg feldíszítette a karácsonyfát.
 7 Hugo really PRT-decorated the Christmas tree
 8 'Hugo has really decorated the Christmas tree.'
- 9
- 10 (70) a. A macska "valóban megette a madárfiókát?
 11 The cat really PRT-ate the nestling
 12 'Has the cat really eaten the nestling?'
- 13 b. Hugó "tényleg feldíszítette a karácsonyfát?
 14 Hugo really PRT-decorated the Christmas tree
 15 'Has Hugo really decorated the Christmas tree?'
- 16
- 17 (71) "Tényleg a macska ette meg a madárfiókát.
 18 Really the cat ate PRT the nestling
 19 'It was really the cat that ate the nestling.'

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

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

- 38
- 39 (72) a. *Hugó* <"*lekéste a vonatot.*>
 40 Hugo PRT-missed the train.'
 41 'Hugo did miss the train'

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

4 Similarly to pragmatic particles, stressed sentence adverbs can adjoin to verum
 5 focus. Consequently, the primary stress will be assigned to the adverb itself.
 6

- 7 (73) a. *Hugó* <"*biztosan lekéste a vonatot.*>
 8 Hugo certainly PRT-missed the train.'
 9 'Hugo certainly did miss the train.'
 10 b. *Hugó* <"*biztosan nem késte le a vonatot.*>
 11 Hugo certainly not missed PRT the train.'
 12 'Hugo certainly did not miss the train.'

13
 14 The associated intonation pattern involves stress reduction (or syntactically
 15 motivated deaccentuation, cf. Varga 2002) after the major stress, in the same
 16 way as in contrastive focus structures. The only difference is that the major stress
 17 falls on the left edge of the predicate instead of a constituent moved to struc-
 18 tural focus position (Spec, FP). In terms of Kenesei (1998: 74), verbs carrying
 19 phonological focus here are 'assertive' or truth-functional, that is, they are con-
 20 trasted with the nonexecution of the same action.

21 The term 'verum focus' was introduced by Höhle (1992: 114), who claims
 22 that the focal stress on the verbs marks the presence of an illocutory predicate
 23 or operator VERUM. According to the definition given by Han and Romero
 24 (2004: 190), VERUM is a conversational epistemic operator that applies to a
 25 proposition *p* to yield a proposition that is true if the speaker is certain that *p*
 26 should be accepted as true and added to the common ground. This function is
 27 expressed through focal intonation on the finite verb also in Hungarian. How-
 28 ever, there is a further issue: where it should be located in syntax. Han and
 29 Romero (2004: 192) claim that the VERUM operator is syntactically placed
 30 above C^0 , but below Q, in the left periphery of the CP domain. Kenesei (1998:
 31 75), treating Hungarian assertive focus, argues that instead of the (lexical) verb
 32 it is the Tense head that is marked for focus. As the verb has to move to Tense
 33 to check its ϕ -features, the head of the TP moving on into the head of the
 34 Focus Phrase carries along the verb adjoined to it.

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

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

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

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

20
 21 (75) *[_{NegP} *Nem* [_{FP} *biztosan* [_{FP} *eltalálta a céltábla közepét.*]]]
 22 not certainly PRT-hit the target in-the-middle
 23 ‘It’s not certain that he hit the bull’s eye’

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

29 (76) [not [VERUM *p*]]
 30 [VERUM [not *p*]]
 31

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

35 (77) [_{FP} *biztosan* [_{FP} VERUM [_{NegP} *nem* [_{NNP} *találta el . . .*]]]
 36 certainly not hit PRT (. . .)

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

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

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

- 10 (78) [_{VERUMP} *Biztosan* [_{FP} *Hugó találta el a céltábla közepét.*]]
 11 certainly Hugo hit PRT the target in the middle
 12 ‘It was surely Hugo who hit the bull’s eye’
 13

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

- 20 (79) *Biztosan a macska ette meg a madárfiókát.*
 21 certainly the cat ate PRT the nestling
 22 ‘Certainly, it was the cat that ate the nestling.’
 23
 24 (80) *A macska ette meg biztosan a madárfiókát.*
 25 the cat ate PRT certainly the nestling
 26 ‘Certainly, it was the cat that ate the nestling.’

27 In case negation has scope over VERUM, that is, [not [VERUM *p*]] is to be derived,
 28 the verb moves to the higher Neg-head (or NN head), generating sentences like
 29 (81–82):
 30

- 31 (81) *Nem találta el biztosan a céltábla közepét.*
 32 Not hit PRT certainly the target in the middle
 33 ‘It is not certain that he hit the bull’s eye’
 34
 35 (82) *Nem találta biztosan el a céltábla közepét.*
 36 not hit certainly PRT the target in the middle
 37 ‘It is not certain that he hit the bull’s eye’

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

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

16 4.3.2. *The individual cases of feltétlenül, okvetlenül and mindenképpen*

18 In sections 4.1 and 4.2.3 a small group of sentence adverbs was mentioned,
 19 namely the adverbs *mindenképpen* ‘by all means’, *feltétlenül*, *okvetlenül* ‘defi-
 20 nitely’ (in the sense ‘under any circumstances’) which always seem to carry pri-
 21 mary stress, having no unstressed counterpart in preverbal position. They are
 22 not akin to ‘high adverbs’ (associated with SD) because of their stress proper-
 23 ties. They are not manner adverbs either because they cannot be focused (84).

25 (83) *Lola "feltétlenül becsomagolja az ajándékokat.*

26 Lola by all means PRT-wraps the gifts
 27 ‘Lola will wrap the gifts by all means’

28 (84) **Lola "feltétlenül csomagolja be az ajándékokat.*

29 Lola by all means wraps PRT the gifts
 30 Intended: ‘It is by all means that Lola will wrap the gifts’

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

36 (85) **Lola "feltétlenül nem csomagolja be az ajándékokat.*

37 Lola by all means not wraps PRT the gifts
 38 ‘Lola by all means will not wrap the gifts’

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

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

4 Based on its possible syntactic positions, the adverb *mindenképpen* 'by all means'
 5 is similar to quantifiers, and seem to be adjoined to PredP or NNP, from the
 6 left or right direction, respectively.¹⁷ It is also subject to negative concord since
 7 the lexeme *mindenképpen* is replaced by its negative counterpart *semmiképpen*
 8 'noways' (88).
 9

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

- 13 (88) *Lola "semmiképpen nem csomagolja be az ajándékokat.*
 14 Lola noways not wraps PRT the gifts
 15 'Lola will wrap the gifts in no way'
 16

17 The quantifier-like analysis of this adverb is also motivated by its morphologi-
 18 cal make-up: *minden-képpen* (approx. 'all+manner/way+by').
 19

20

21 5. Conclusion

22

23 In this paper I have discussed the syntactic and prosodic features of Hungarian
 24 predicational adverbs, paying special attention to ambiguous adverbs with both
 25 manner and clausal readings. The crucial idea followed throughout this paper
 26 was the assumption that the stress properties and prosodic integration of such
 27 adverbs can be derived from their syntactic position in the same way as in case
 28 of ordinary adverbs. Since ambiguous adverbs are semantically underspecified,
 29 they have a number of possible sites to be adjoined to, and their proper inter-
 30 pretation will depend on the structural level at which their adjunction takes
 31 place. In postverbal position, however, due to the neutralized prosodic environ-
 32 ment and free word order, the normal disambiguating strategies fail to func-
 33 tion. The sentential reading of an ambiguous adverb becomes available only
 34

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

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

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

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