Defining 'contrast' as an information-structural notion in grammar

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Abstract:

Building on the basis of the papers in this special issue on 'Contrast as an information-structural notion in grammar' as well as earlier research, this editorial paper decomposes the notion of *contrast* and argues that it cannot be satisfactorily defined from a semantic-pragmatic point of view for all the environments where contrast has been argued to occur. It discusses notions like the size of the alternative set for contrast vs. focus, the explicit mention vs. implicit presupposition of alternatives, and their identifiability. It shows that exhaustivity often accompanies contrast and vice versa but that the two meaning components do not necessarily occur together. It argues that contrast in contrastive focus has different characteristics from contrast in contrastive topics – which also interacts with the contexts in which these occur (corrections vs. parallel structures) – and suggests that *contrast* should be considered a cover term for phenomena that share a family resemblance but still show important differences.

1   Introduction

Contrast as an information-structural notion and its role in grammar is an intensive research domain in semantics, syntax, phonology, and the study of discourse organization. This special issue brings together work from different areas of linguistics, and seeks to advance the state-of-the-art understanding of the broader notion of contrast as an information structural notion, i.e. what contrast is, and how it is expressed. The issue flows forth from the *3rd Workshop on Contrast: Contrast Towards a Closer Definition*, which was held in Berlin in May 2007[1].

The meaning of *contrast* in its everyday use can be described as 'opposition or unlikeness of things compared' (The Chambers Dictionary, 1993) or 'juxtaposition or comparison showing striking differences' (The Oxford Encyclopedic English Dictionary, 1991). These two ways of circumscribing *contrast* already reveal a certain underdeterminacy in its definition. On the one hand, it is agreed that there has to be some unlikeness or juxtaposition between things contrasted. On the other hand, we find that there should, or could be striking differences, which of course leaves open what makes a difference striking. This difficulty to pin down to what extent contrasted elements must be 'different' or 'opposed' carries over to the technical linguistic definition of the term and consequently is a much-discussed issue.

Contrast has been assumed to be an autonomous information-structural notion (see especially Molnár 2002) but it often co-occurs with other information-structural categories, viz. *topic* and *focus*. A contrastive topic can be considered a subtype of topic and a contrastive focus a subtype of focus. Contrastive topics, for instance, are often viewed as topics with a focus (e.g. Büring 1997, Krifka 1998), where focus is viewed as the information-structural category that elicits alternatives to the focused element (Rooth 1985, 1992). Here, focus is understood in the terms that seem central in the non-technical definitions of contrast quoted above: things compared (= alternatives) are not alike. So in what way is contrast different from focus? And what then is a contrastive focus? A focus is often considered contrastive if it occurs in a correction, or in a parallel structure (like in ellipsis) where it is juxtaposed directly with another contrastive focus. What is the precise contribution that contrast makes in such contexts in addition to the contribution focus makes or, vice versa, what is the contribution of focus in addition to the contrastive juxtaposition in these contexts? Similarly, we may ask what exactly contrastive topics are. Can we decompose the notion of contrastive topic into a topic

part and a contrast part? And then, is the contrast in contrastive topics more than just the indication of the existence of alternatives?

The papers in this special issue approach the question of what contrast exactly is semantically and pragmatically, and how it interacts with topic and focus, from different points of view, and study the manifestation of contrast both in syntax (Horvath, Frey, Skopeteas & Fanselow, Molnár & Winkler, Konietzko & Winkler) as well as prosody (Konietzko & Winkler, Sudhoff). The foremost question from a syntactic point of view is whether there is a designated syntactic position for contrast or not. Although the articulation of left-peripheral functional projections hosting pragmatically marked phrases (starting with Rizzi 1997) easily lends itself to the postulation of, for instance, a left-peripheral contrast phrase (cf. Vallduví & Vilkuna's 1998 notion of *kontrast*), a recent trend in syntax is moving away from this type of feature-based syntactic encoding of information-structural notions. The current debate concerns the question of whether or not pragmatic features can or should trigger syntactic displacement or whether completely different features are responsible (cf. Fanselow 2006 on prosodic triggering), or indeed whether a radically different type of motivation not relying on 'feature displacement' should underlie putative pragmatically-driven displacement (cf. Neelemann & van de Koot's 2008 notion of *discourse templates*). Of the papers in this volume, Horvath disputes the existence of a designated syntactic contrast position both from a theoretical as well as from an empirical point of view discussing data from Hungarian, German and Dutch. She assumes that contrast-related movements are optional and can be exploited at the interface with information structure along the lines of Neeleman & van den Koot (2008). Skopeteas & Fanselow share this view on the basis of Georgian data and consider the relation between word order and contrastivity as a result of the discourse asymmetry between contrastive and non-contrastive contexts in conjunction with accentuation rules of the language. Molnár & Winkler as well as Konietzko & Winkler take the opposite position on the basis of data from the Germanic languages, as well as Finnish, and argue that contrast is coded syntactically. Frey argues for German that an element appearing in the left periphery through Ā-movement[2] does so because it is contrastive; the contrastive position he envisages, however, does not host 'plainly' contrastive elements: the referent of the left-peripheral element is the one with the highest rank among a partially ordered set of alternatives, where the partial ordering is established on the basis of notions like expectation, relevance, etc., depending on the context.

From the point of view of prosodic marking, it has been hotly debated whether contrastive focus, for instance, receives a more prominent demarcation (higher pitch, longer duration, greater intensity) than non-contrastive focus (e.g. Alter et al. 2001 for German, Face 2001 for Spanish, Hedberg & Sosa 2006, Selkirk 2002 for English). Similarly, contrastive topics and their potentially distinctive prosodic characteristics (for instance accent type, interaction with phrasing) have been subjected to phonological analysis (e.g. Frascarelli & Hinterhölzl 2007 for German and Italian, Hedberg & Sosa

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[2] The left-peripheral, or more specifically, the prefield position in German can also be filled by other movement than Ā-movement in German, viz. so-called *Formal movement* of the highest element in the middle field. Formal movement has no information-structural import.

2007 for English, Lee 2006 for Japanese). Among the papers in this special issue there are two experimental studies that investigate prosodic aspects of contrast. Sudhoff shows for corrective focus in German that contrast is realized prosodically in that it has different categorical and gradient characteristics from non-contrastive (= non-corrective) focus. Konietzko & Winkler show that prosodic cues can overwrite syntax-information-structure mismatches in parallel constructions like stripping. Finally, Skopeteas & Fanselow argue that prosodic prominence can lead to an exhaustive interpretation of a focused element independent of that element's syntactic position.

The specific findings of the studies in the special issue will be summarized in greater detail in section 3 of this editorial. Section 2 is devoted to the question of how contrast can be defined from a semantic-pragmatic point of view building on the investigations in this special issue, as well as earlier literature.

2   Decomposing contrast

The aim of this section is to show that the term *contrast* has been used for a number of concepts that bear a family resemblance but cannot easily be summarized under a definition that is both general enough to cover all of them, and specific enough to distinguish contrast from the notion of focus in the alternative-indicating sense. We shall see that although various semantic and pragmatic aspects have been deemed relevant in the definition of contrast they cannot be found in all the environments that have been suggested to be contrastive. In section 2.1 I shall look at aspects that have been argued to differentiate focus from contrastive focus. These include the SIZE OF THE ALTERNATIVE SET (open set for focus, closed set for contrastive focus), as well as its EXPLICIT MENTION OR IMPLICIT PRESUPPOSITION (explicit for contrastive focus, implicit for non-contrastive focus), which interacts with the IDENTIFIABILITY OF THE ALTERNATIVES. Another ingredient of contrastive focus as opposed to non-contrastive focus seems to be the REQUIREMENT TO EXCLUDE ALTERNATIVES in the sense that what is said about the contrastively focused element does not hold for its alternatives. Non-contrastive focus does not have this requirement. The exclusion of alternatives is a hotly debated question in the discussion of EXHAUSTIVITY. Exhaustive focus need not exclude alternatives from a principled point of view but apparently has to do so in the language most discussed in this respect, viz. Hungarian. As might be expected the contrastive status of exhaustive focus in Hungarian is a point of much dispute. It is important to note, however, that exhaustivity is not an immutable ingredient of contrast: contrastive topics only come with an exhaustivity implicature but not with an exhaustivity entailment like contrastive focus (sections 2.1.3 and 2.2).

Apart from the issue of the meaning components of contrast, there is the question of CONTEXTS FOR CONTRAST, which in my view has not received the attention it deserves: it is usually taken for granted that corrections on the one hand, and parallel structures like certain clausal ellipsis types (gapping, right node raising etc.) on the other hand, are contrastive. Yet these two contexts are very different and what we mean by contrast has different meaning components in either case. For instance, corrections involve rejection of material of the common ground, parallel structures do not (see sections 2.1, 2.2.1). This means that using these contexts as a backdrop for comparison with other, putative contrastive cases – or putative non-contrastive cases – will yield very different results depending on the context used. In what follows I discuss all these

questions in some more detail giving the reader a more informed picture of the difficulties surrounding the notion of contrast and essentially arguing for the impossibility to give a unified semantic-pragmatic definition that can be applied to all the cases which have been suggested to involve contrast.

2.1 Focus vs. contrastive focus

Focus, as was already noted, shares a crucial feature with contrast: there is a set of alternatives that is relevant in its interpretation. Krifka (2008) argues that the view of focus as alternative-indicating is a very successful approach and can explain both semantic and pragmatic uses of focus. Pragmatic uses are those that concern the management of the common ground (CG): focus can signal to the interlocutor(s) how the CG should develop, what the communicative goals of the interlocutors are. For instance, focussing an item might have the effect of making accommodation of an implicit discourse-organizing question possible. Semantic uses of focus are those that concern CG content: focus can have truth-conditional effects. Such effects are typically found in the interpretation of focus-sensitive items such as focus-sensitive particles (e.g. *only*) or focus-sensitive adverbs (e.g. *usually*).

Now, comparing focus with contrast, the first thing to be observed is that focus on an item has been said to actually *evoke* alternatives (e.g. Rooth 1992). Contrast, on the other hand, seems to be more explicitly relational than focus: we have focus ON an item but contrast BETWEEN items. This suggests that the contrasted items and their alternatives, i.e. the items they contrast with, must be explicit, whereas the alternatives of a focused items may remain implicit, and can be accommodated. From this point of view it seems that contrast has a CG managing function. On the other hand, I already mentioned above that contrast has also been invoked in the discussion of semantic effects of focus, most notably exhaustivity. From this point of view it also may play a role in CG content. I shall come back to these issues below. Returning to the nature of the alternatives in the interpretation of focus vs. contrast, there are two aspects which have been relevant in attempts to tease the two notions apart. One is the size of the alternative set and the identifiability of its elements, the other is the way in which the alternatives are actually relevant for the interpretation, which basically means exclusion requirements on the alternatives. These two aspects will be taken up in the next two subsections.

2.1.1 The size of the alternative set and the identifiability of its elements

É. Kiss (1998) suggested that a focus is contrastive if the alternatives elicited by it are elements of a restricted set. To be sure, non-contrastive focus neither is necessarily based on truly open sets – an utterance with a focus is typically restricted by context (Rooth 1992, von Fintel 1994). Otherwise a sentence like (1)[3] could only be true in an

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[3] The focus a focus particle associates with is sometimes called 'contrastive focus' because it elicits alternatives (cf. Selkirk 2008). In the context of the current discussion this terminology is misleading. For German, the study by Sudhoff (this volume) shows

extremely exceptional situation, i.e. one where Bill was the only person at all that turned up at the main station. However, (1) will usually be taken to be true if out of a contextually relevant set of individuals it was Bill and nobody else that turned up, i.e. (1) would still be true if other individuals that are not in the contextually relevant set of individuals turned up, which would be a natural scenario.

(1)   Only [BILL $_{Foc}$] turned up at the main station.

What distinguishes the non-contrastive interpretation of (1) from a contrastive one[4] is that in the former case it is not necessary that every individual in the set of alternatives be identifiable. For instance, (1) can be uttered in a context where all the kids of a primary school were supposed to meet up at the station but then only one, viz. Bill, turned up. We need not know who the other kids are or even how many kids there are in the school for (1) to be a felicitous utterance, i.e. the alternatives can be given just by intension/description and need not be named/enumerated. Contrastive focus is different. As É. Kiss (1998) suggests, a focus is contrastive if there is a complementary alternative set with 'clearly identifiable elements' (p.268). For (1) this means that it is interpreted as contrastive if there is at least one other identifiable salient individual in the context that did not turn up at the station. Thus, the restricted set operated on in the interpretation of contrast is one where the alternatives are given explicitly in the discourse. With non-contrastive focus, the alternatives in the 'open' set can remain implicit to the extent that they can be largely unknown.

Krifka (2008) takes up the question of the restricted alternative set and suggests that the alternatives must be part of CG content and not CG management. He observes that although the question in (2A) introduces an explicit set of only two alternatives, viz. {*tea, coffee*}, the answer in (2B) is not more contrastive in the context of (2A) than it is in the context of (2A'), which does not introduce a set of restricted alternatives.

(2)   A: What do you want to drink, tea or coffee?

        A': What do you want to drink?

        B: I want [TEA $_{Foc}$])

Krifka assumes that questions do not usually add factual information to CG but manage CG by indicating informational needs of one interlocutor which are expected to be satisfied by a conversational move of the other interlocutor. Thus, it is CG management that contains the set of propositions expressed by a question with the answer then adding one of the propositions to CG content. The problem with this assumption for the idea that the restricted alternative set must be part of CG content, is that questions CAN deliver alternatives that are taken up in the reply by a contrastive phrase, as is illustrated by the example in (3):

(3)   A: Did John drink tea?

        B: [PETER $_{contrastive\ focus}$] drank tea.

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that there are phonological and phonetic differences between corrective focus, which I consider contrastive, and focus a focus particle associates with.

[4] Whether this is reliably marked by prosodic means in English is still a matter of debate (see e.g. Selkirk 2002; House & Sityaev 2003).

The individual denoted by the focused element *Peter* in (3B) contrasts with the individual introduced in the question, *John*. Obviously, (3B) is not a congruent answer to (3A). It can be taken to implicate that John did not drink tea, or that speaker B does not know or care whether John drank tea but still thought it relevant to relate to speaker A that Peter drank tea. In both cases, however, (3B) is a conversational move that reacts to the question in (3A)[5]. Thus, it seems that we have to say that questions do introduce propositional content into CG – without claiming it to be true –, if we wish to keep up the idea that contrast only is possible within CG content. This obviously requires an extension of the notion of CG originally proposed by Stalnaker (1978), where CG is the set of propositions which the participants in the conversation mutually agree to treat as true for the purposes of the exchange. This step seems to be required anyway, however, as recent investigations into the notion of CG, especially in the context of epistemic modality (Fintel & Gillies to appear, Portner 2007), as well as speech act operators (Repp 2009) have found, where propositions can be 'put into play' without getting asserted, or more generally, where the illocutionary status of a proposition in CG can be different from being held true by the interlocutors.[6]

Going back to the lack of contrastiveness in (2B) in the context of (2A), I suspect that the reason is that there is no contrast between the focused constituent in the answer, *tea*, and all the explicit alternatives in the immediate context in (2A), {*tea, coffee*}: adding the proposition that speaker B wants to drink tea to CG is an option considered by speaker A and this option is taken up by speaker B.[7] Importantly, however, example (2) indeed shows that a restricted alternative set is no guarantee for a contrastive interpretation.

2.1.2   Exclusion requirements

I suggest that whereas focus on an item α indicates that alternatives to the denotation of α are relevant for the interpretation of the sentence containing α – and no more – for

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[5] We might say that it does this indirectly via an implicit question like *Did PETER drink tea?* but the point remains.

[6] Also note that questions can introduce propositions that can be picked up as discourse referents by anaphoric elements in the answer (Manfred Krifka, p.c.):

(i)   A: Did Peter cheat? B: John thinks *so*.   B': John doesn't think *so*.

[7] The following example, pointed out to me by Manfred Krifka (p.c.), is very interesting in this context:

(i)   A: Peter cheated.   B: [EVERYONE $_F$] cheated.

Speaker B in (i) does not take up an option considered by speaker A. Rather, the proposition put forth by A is rejected by B on the grounds that it is not informative enough, or not relevant in view of the fact that everyone cheated. There seems to be contrast between the two propositions here. Whether and how the two subject DPs contrast needs more scrutiny. Also note in this connection that [EVERYONE] can come with a falling accent or a rising accent. What difference in meaning this produces (if any) still needs to be explored.

contrast this is not enough. This is best seen in the interaction with the focus particle *also*, illustrated in (4), where the focus *also* associates with is *his mother*.

(4)   John also visited [his MOTHER $_{Foc}$] on Tuesday.

(4) asserts that John visited his mother on Tuesday and presupposes that in addition John visited somebody else – an alternative in the alternative set elicited by the focus on *his mother*. If the focus in (4) is interpreted contrastively it can only be understood as what we might call a second-occurrence focus with the presupposition that there is an alternative to *his mother*, whom John did not also visit. In other words, the context would contain something like *John also visited [his FATHER $_{Foc}$] on Tuesday*, which (4) claims to be not true. Thus, focus elicits alternatives but otherwise imposes no restrictions on how the alternatives are evaluated – whether replacing the focus with an alternative results in a true proposition or not. Certainly, the observed effect is due to the particular semantics of *also* but the contribution of the focus here still is that it delivers alternatives relevant for the interpretation of the clause containing *also*. Importantly, it does no more.[8] Contrastive focus is different. Substitution of a contrasted element with an alternative results in the proposition expressed being false. This should have become clear from the discussion of the contrastive interpretation of (4), which essentially is interpreted as corrective (but see below the discussion of contrastive topics).

Krifka (2008) suggests that contrastive focus can be additive (also see Krifka 1999) giving the example in (5) but views contrastive focus as presupposing that CG 'contains a proposition with which the current utterance can be constructed, or that such a proposition can be accommodated'. This is a very vague definition because it is not at all clear what 'being constructed' means.[9]

(5)   A: John wants coffee.

        B: MARY wants coffee, TOO.

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[8] Similar things can be said about *even*. Replacing the focus *even* associates with in (iB), *Bill*, with the contextual alternative from (iA), *George*, does not result in a false proposition.

(i)   A: It looks as if Mary is doing well at Consolidated Wiget. George [the second vice president] likes her work.

        B: That's nothing. Even Bill [the president] likes her work. (Kay 1990: 86)

Note that as in the case of *also*, the contribution of *even* is presuppositional. (iB) presupposes that what is asserted of the focused element is more noteworthy or informative than what would be asserted if the focused element were replaced by an alternative (e.g. Francescotti 1995, Kay 1990). The 'task' of the focus is to provide the alternative(s). There is no interaction with truth conditions.

[9] Krifka (p.c.) suggests that *too* in this example actually marks *[wants coffee]* as given.

I think that contrastiveness in the sense discussed in the previous paragraphs does not come into play in cases like (5): what is predicated of John is also predicated of Mary.[10] The only way (5B) could be interpreted as contrastive is if (5A) comes with a focus on *John* which is understood exhaustively. Then the contrast would be between two propositions: one being the one expressed by (5A) namely that nobody but John wants coffee, and the other one being (5B), which says that there is an alternative to John for which it does not hold that is not in the set of individuals that want coffee.

From everything we said so far it seems that contrast comes with an element of rejection or correction. This can materialize in the form of an exclusion requirement so that contrast marking on an element α indicates that there is a salient alternative *α* in the immediate context for which what is said about *α* does not hold. Or there might be a proposition in CG which is rejected like in a contrastive interpretation of (5B) (this latter case is quite unclear and needs much more discussion).

In 2.2 we shall see that in certain contexts, contrast does not necessarily involve an element of rejection. Contrastive topics will turn out to be different from contrastive foci in this respect. Contrastive topics typically occur in parallel structures with (at least) two contrast pairs, i.e. two different sets of alternatives out of which elements are contrasted with each other. In the discussion of the examples in the previous two subsections, on the other hand, which were chiefly concerned with focus, we mainly had one contrast pair in the discourse[11], and an interpretation of contrast involving correction or rejection easily suggested itself. In this special issue, it is indeed corrections that are preferably used as contexts where contrastive foci occur. See especially the papers by Fanselow & Skopeteas, Sudhoff, and also Konietzko & Winkler (see section 3 for further details).

Nevertheless, corrections are not the only environments where alternatives are explicitly excluded. Apart from sentences with exclusive focus particles there also is exhaustive focus without an overt particle as it has been discussed for Hungarian, or specific constructions that seem to mark exhaustivity such as cleft sentences in English. In the discussion of these, contrast always plays a prominent role as I will show briefly for Hungarian exhaustive focus in the next subsection.

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[10] Krifka (1999) discusses parallel structures with contrastive topics (marked with 'CT' below) and a stressed additive particle. He gives the following example to illustrate a 'natural context' (the accents mark rising and falling accents respectively):

(i)   A: What did Peter and Pia eat?

B: [PÉTER $_{CT}$] ate PÀSTA, and [PÍA $_{CT}$] ate pasta, TÒO.

With respect to data like (i) I am siding with Büring (2003, also see Büring 1997) who suggests that if a speaker follows the Gricean maxims answering (i) by *They ate pasta* would be briefer and therefore more adquate. Krifka (1999) suggests that the presence of *too* saves this example but I think that it is only acceptable as a result of online (left-to-right) processing. See section 2.2.1 for more on parallel structures like (iB).

[11] But recall that stressed additive particles have been analysed by Krifka (1999) as occurring with contrastive topics, see fn. 10.

2.1.3   Exhaustive and contrastive focus

Hungarian has a preverbal syntactic position which is targeted by constituents that are interpreted exhaustively. A much-debated question in the discussion of this position, which information-structurally hosts focused constituents, is whether the exhaustive interpretation always comes with a contrastive interpretation or not. With respect to the former question, È. Kiss (1998) proposes that this is not necessarily the case and gives the following example where there is no alternative set with clearly identifiable elements:

(6)   a. Ki   írta   a   Háború   és   békét?   *Hungarian* (É. Kiss 1998: 268)

who   wrote the   War   and   Peace

'Who wrote War and Peace?'

b.[$_{TopP}$A Háború és   békét [$_{FP}$ Tolsztoj írta]]

the War   and Peace   Tolstoy wrote

'It was Tolstoy who wrote *War and Peace*.'

Kenesei (2006) disputes É. Kiss's view and says that the exclusion of alternatives – which he considers as constituting contrastiveness – is a necessary condition for the movement to the preverbal position in Hungarian, one of the reasons being that universally quantified phrases cannot occur in that position. Horvath (this volume) thinks that the necessity to exclude alternatives is not enough to appeal to the notion of contrast, assumes that the exclusion requirement is part of the definition of exhaustivity[12], and sides with É. Kiss (1998). We see that the interplay of

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[12] It is worth mentioning in this context that focused constituents the focus particle *czak* ('only') associates with also must occur in the preverbal focus position, see (i), see Horvath (this) volume for the full paradigm.

(i)   Mari   csak [A   FOGADÁSRÓL]   késett   el.

Mary-NOM   only   the   reception-from   late-was away

'Mary was late only for THE RECEPTION.'

Hungarian (Horvath, this volume)

The meaning contribution of *only* obviously is exhaustivity so one may ask why *only* is 'needed' for a constituent that occurs in a position where constituents are interpreted exhaustively anyhow. The difference might lie in the presuppositions *only* and the exhaustivity operator defined by Kenesei (1986) come with. A sentence *s* containing *only* associating with an element α, presupposes that the proposition *p* denoted by *s* without *only* is true, and it asserts that for all true focus alternatives *p'* of *p*, which differ from *p* in the denotation of α, *p'* = *p*. In the case of a sentence *s'* containing an exhaustively focused element α', the maximal sum individual is formed from the predicate *P* applying to α', and it is asserted that α' is this maximal sum individual. The maximal sum individual is only defined if there is an individual *x* in the denotation of the predicate. Thus, the presupposition *s'* comes with is that *P(x)* is true for some

contrastiveness and exhaustivity in the case of Hungarian exhaustive focus is far from being settled. I refer the reader to Horvath's contribution in this volume for further details on this issue (also see Kenesei 1986, Szabolcsi 1994, É. Kiss 1998, Horvath 1997, 2000).

To link the Hungarian case to the discussion of corrections, let me point out that example (6) also shows that an exhaustive focus does not need to be corrective: (6b) simply answers the *wh*-question in (6a). Importantly though, as with corrective focus, the exhaustivity effect in Hungarian is not just an implicature but an entailment. This is illustrated by the following example from Horvath (this volume), which builds on earlier literature. (7b) in Hungarian entails that John was called up and nobody else. Therefore it does not follow logically from (7a):

(7)   Context Q: 'Who did they call up?'

        a. [JÁNOST ÉS   MARIT]   hívták   fel.

           John-ACC and   Mary-ACC called-3PL up

           'They called up JOHN AND MARY.'

        b. [JÁNOST] hívták   fel.

           John-ACC called-3PL up

           'They called up JOHN.'   *Hungarian* (Horvath, this volume)

In the next section we shall see that contrastive topics are different in this respect, which means that not only is exhaustivity possibly no necessary ingredient of contrast but also contrast is no necessary ingredient of exhaustivity as the case of corrections might have suggested.

2.2   Contrast, contrastive topics, topics

Contrastive topics have been discussed in two types of contrast. One is parallel structures, the other is question-answer discourses (which also feature prominently in some analyses of parallel structures). I shall look at these in turn, then move on to the question whether there is sufficient evidence to consider contrastive topics as the sum of topicality and contrastiveness, and argue that there is not.

2.2.1   Parallel structures

Parallel structures, as they are found for instance in coordinations with ellipsis, are normally considered prime examples of contrastiveness (see especially the papers by Molnár & Winkler and Konietzko & Winkler in this issue, as well as the contributions by Frey, and Horvath). Parallel structures, just like corrections, display exactly those characteristics that have been suggested to be typical for contrast: there is a restricted set of explicit, identifiable alternatives, given in the two conjuncts, which serve as the immediate context for each other, cf. (8).

(8)   John bought chicken and Peter (bought) veal.

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individual *x*. Although the assertion truth-conditionally is the same as for *only p* the presupposition is weaker. (Thanks to Andreas Haida for discussing this point with me.)

The parallelism of the two conjuncts in structures like (8) aids the contrastive interpretation (see the papers just mentioned for details and references). This holds both for semantic, syntactic, as well as for prosodic aspects. We may assume that this is because alternative set formation is particularly easy with maximal parallelism in the sense that the elements of the alternative set are highlighted in the same way and therefore can be easily identified as elements in the same set.

Still, the role of contrast vs. focus, in parallel structures cannot be considered settled. Frey (this volume) suggests that the alternatives in parallel structures are elicited by 'simple' focus. Even though his position results from his more restricted definition of contrast for a syntactic contrast position in the left periphery in German (see above & section 3) we may ask whether it might be justified nonetheless. In the previous sections I considered cases where contrast between an element and its alternative(s) meant that if the former were replaced by the latter the resulting proposition would be false. And although a similar effect has been discussed for parallel structures – under the heading of contrastive topics – we shall see in this section that it is not entirely the same. To illustrate, consider again the gapping construction in (8). (8) will normally be taken to mean that out of the alternative set containing *John* and *Peter*, only John bought chicken, and only Peter bought veal. Thus, something is said about one element in the set of alternatives – topic α –, which does not hold for the other element in that set - topic β [13]. However, this effect, which basically is an exhaustivity effect, is 'only' a pragmatic effect: Krifka (1999) speaks of a 'weak' distinctiveness condition, Büring (2003) and Sæbø (2004) consider it an implicature.[14,15] This means that it can be overwritten by context, which is illustrated by the following example (slightly altered from Repp 2008, based on Krifka, p.c.):

(9)   A: Max is good at maths but not so good at English; Eva is good at English but not so good at maths. They did a test both in maths and in English. One of the two will be rewarded for good results. You know the test outcome. Who do you think should be rewarded?

        B: *Max got an A in English and Eva a B in maths.* Of course, Eva also got an A in English – but that's no news. Also as expected, Max got an A in maths. So I think, it should be Max who gets the reward.

The exhaustivity implicatures normally arising in parallel structures are cancelled in this example: it is not the case that only Max got an A in English, Eva got an A, too. Still, the italicised target sentence in (9) is contrastive by all we have said above. The

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[13] For the contrastive-topic/focus structure of gapping constructions see e.g. Winkler (2005), Repp (2008, 2009).

[14] Hara & Van Rooy (2007) argue that the notion of implicature is too weak here because in their view, it is less easy to cancel this interpretive effect than e.g. scalar implicatures.

[15] Horvath (this volume) puts forward the observation that in gapping structures like (8) in Hungarian none of the contrasted elements needs to occur in the preverbal exhaustive (focus) position. This feeds the assumption that the exhaustivity found with contrastive topics in parallel structures only is a cancellable implicature and is not syntactically coded.

important point here is that *within* the parallel structure, there is distinctiveness: what is predicated of Max is not the same as what is predicated of Eva. The fact that Eva and Max share certain properties is only related in the subsequent discourse. Recall that this was different in (5), an example with an additive particle, which I argued to be non-contrastive. In (5) there was no contrast between the two individuals in the alternative set evoked by focus: they were ascribed the same property.

2.2.2 Question-answer discourses

Contrastive topics have also been investigated in non-parallel structures[16] such as question-answer discourses. Interestingly, contrastive topics can be used as the phrase that replaces the *wh*-term in the question, which is normally thought to be replaced by a focused phrase. The status as contrastive topic can be marked by syntactic position as in Finnish: Finnish has been argued to have a left-peripheral contrast position (Vilkuna 1995, Vallduví & Vilkuna 1998, Molnár & Winkler this volume), which can be taken by contrastive topics. The interpretation is not exhaustive:[17]

(10)　　A: Where do Anna, Kati, and Mikko live?　　*Finnish* (É. Kiss 1998: 271)

　　　　B: [$_{Spec,CP}$ Anna]　asuu　täällä.

　　　　　　　Anna　lives　here

　　　　　'Anna, she lives here.'

That contrastive topics behave different from foci with respect to exhaustiveness in the context of questions can also be seen quite clearly in Japanese, which uses morphological marking for contrastive topics (e.g. Nakanishi 2001, Hara 2005, Kuroda 2005), cf. (11) from Hara (2005):

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[16] Note, however, that contrastive topics always indicate a richer discourse structure in the right context (see below), which, more often than not can be assumed to have a parallel clausal structure.

[17] This left-peripheral position can also be targeted by *also*-phrases, if they are contrastive, see (i). Note in this context that exhaustive foci in the Hungarian preverbal position and in English clefts can also come with *also* if they are interpreted contrastively, see (ii) from Kiss (1998). Kiss (1998) suggests that this is possible because the rest of the alternatives in the set are still excluded, i.e. she follows Kenesei (1986) who suggests as the relevant notion 'exclusion by identification'.

(i)　　Anna-kin asuu täällä.

　　　Anna-too lives here

(ii)　　A: Bill danced with Mary.

　　　B: No, it was Sam that danced with Mary.

　　　C: It was also John that danced with her.

(11)   A: Who passed the exam?   *Japanese* (Hara 2005: 101)

        B: MARY-wa   ukat-ta

        Mary-CONTRAST pass-PAST

        'Mary passed.' (implicates: 'Possibly, others didn't pass.')

        B': MARY-ga ukat-ta.

        Mary-NOM pass-PAST

        'Mary passed.' (exhaustive answer)

Both the utterance in (11B) and the one in (11B') can be used to answer the question in (11A). The difference is that whereas (11B') with the nominative-marked phrase excludes all alternatives which do not make the proposition true, (11B) with the contrastive-topic marked phrase excludes the alternatives for which the speaker knows that they do not make the proposition true or for which the speakers is unsure whether they make the proposition true (cf. Hara & Van Rooy 2007).[18] Thus, it seems that contrastivity does not necessarily come with exhaustivity, and vice versa. Still, there are interesting correlations which still require closer investigation.

2.2.3   Contrastive topics = topic + contrast?

The fact that sentences with a contrastive topic like (11B) in the previous section leave open whether alternatives to the contrast-marked element might make the proposition true or not might be viewed as being related to the function of contrastive topics to indicate that there are discourse moves in addition to the one containing the contrastive topic, which answer the same superordinated question (cf. Büring 2003), and eventually clarify whether there are alternatives that make the proposition true or not. In other words, contrastive topics have a CG managing function foci do not have: they indicate that there are still open questions relevant to the current discourse (this does not hold for the last in a series of contrastive topics, of course).

This takes us to the question in what sense contrastive topics are topics, i.e. whether contrast is just added to topichood. Intuitively, the contrastive topics in the examples discussed so far seem to make good *aboutness* topics in the sense of Reinhart (1981) because they all come with what can be classified as a comment. In (11B) for instance, the information provided about *Mary* is that she passed. Alternatives to *Mary* might have passed too, or not. It is actually unclear, whether contrastive topics are aboutness topics. Recent research into the kind of phrases that can occur in parallel (gapping) structures (Hinterwimmer & Repp 2008) indicates that the contrastive topics in these structures can be aboutness topics but need not be. (12a) shows that quantifier phrases (QPs) that have been identified as being able to serve as aboutness topics such as unmodified numeral QPs (Ebert & Endriss 2004) can serve as alternatives even if on the surface they have the same form. The reason is that they can contrast referentially.

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[18] Despite these differences there are some interesting parallels between exhaustive focus in Hungarian and contrastive topics: neither of them can occur with universal phrases (Büring 1997 for the latter).

Modified QPs like in (12b) cannot serve as alternatives for each other if they have the same form because they cannot be referential – which would also be required to serve as an aboutness topics. Such QPs can contrast with each other, however, if they are denotationally different without requiring referential contrast, see (12c).

(12)　　a.　Three student wrote to the director and three students to the dean.

　　　　b.　*Less than three students wrote to the director

　　　　　　and less than three (students) to the dean.

　　　　c.　Less than three students wrote to the director

　　　　　　and less than four (students) to the dean.

So it seems that QPs that cannot serve as aboutness topics can occur in structures which are generally taken to have a contrastive-topic/focus structure. QPs that can serve as aboutness topics can also occur in such structures and in addition allow contrast formation which is not available for non-aboutness topics. In sum, this means that contrastive topics need not be aboutness topics. This leaves the notion of topic as active discourse referent as an option to interpret topicality, which in the context of parallel structures does not seem to be very far-reaching. This is not the place to explore this matter in further detail but it is clear that the precise interrelations between contrastivity and the concept of topicality should feature in future investigations of the characteristics of contrast.

2.3　　Interim conclusion

This introduction has shown that there are still many issues surrounding the semantic-pragmatic definition of contrast. The most-discussed issues are the size and familiarity of the alternative set as well as exhaustivity effects, or exclusion requirements. We have seen that there are differences between contrastive foci and contrastive topics especially with respect to the latter aspect. To come back to our initial question, I do not think that it is clear yet how *striking* the differences must be between contrasted elements to justify the label 'contrastive'. Corrective foci in this sense seem to be 'more contrastive' than contrastive topics in parallel structures. This clearly has to do with the exclusion requirements that exist in these various contexts. In addition, to really appreciate the contribution contrast makes it is necessary to view its effects on the common ground more generally: contrast between constituents produces contrast between propositions (which is most obvious in corrections). Yet it is clearly not enough to speak of 'contrasting' propositions if they merely say something different that somehow is related to each other. This is always the case in coherent discourse.[19] Thus, the study of contrast is many-facetted even if one 'only' looks at its semantic-pragmatic aspects and there is still much research required. The editors cordially invite the reader to study the contributions in this special issue and dive into the examination of contrast and its manifestations in grammar.

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[19] This points to a field of enquiry that was not touched upon at all in this introduction and is not part of this special issue: the role of conjunctions and other discourse markers in the interpretation of contrast.

3   Summary of the papers in this volume

Horvath (*"Discourse features", syntactic displacement and the status of contrast*) poses the question of whether narrow syntax encodes information-structural categories like contrast or focus at all, i.e. whether there can and should be functional projections which are targeted by information-structurally specified elements to fulfil their featural requirements. Revisiting the case of Hungarian focus movement and further investigating contrast in various languages she proposes that narrow syntax does not encode what she calls *discourse features*, i.e. topic, focus, contrast, comment etc. but only truth-conditionally relevant features such as exhaustivity (maximality). It is exhaustivity that according to Horvath is at the heart of the purported focus movement in Hungarian, which, she suggests, is implemented via an exhaustive identification (EI) head with an [EI] feature, which Agrees with an EI operator merged at the root of a phrase in its c-command domain. The operator associates with focus just like the focus particles *only* or *also* do, which determines the domain of quantification available to the operator. In itself focus is merely a discourse notion and does not license movement. The same, in Horvath's view, holds for contrast. She argues that the kind of movement observed for contrastive elements differs in essential ways from operator movement: e.g. it does not interact with quantificational elements, which it should if it were truth-conditionally relevant, and it is usually optional. Horvath suggests that movements that seem to be induced by information-structural categories are not actually induced by them. Rather, the alternative linearizations narrow syntax may produce are produced for economy reasons: a movement may facilitate the mapping from syntax to information structure in that it maps for instance a constituent, rather than parts of constituents, onto an information-structural unit (as suggested e.g. by Neeleman & Van de Koot 2008, also see Skopeteas & Fanselow this volume).

    Skopeteas & Fanselow (*Focus in Georgian and the expression of contrast*) observe that in Georgian, which has several focus positions in the clause, these focus positions are not categorically distinguished with respect to contrast or other interpretational differences such as exhaustivity. Both immediately pre-verbal foci and post-verbal foci may receive the same kinds of interpretations. Interpretational differences are marked by prosodic means. Nevertheless, in a production experiment Skopeteas & Fanselow found that the immediately preverbal position is occupied significantly more frequently by contrastive (in this case corrective) narrow foci than the post-verbal focus position. They suggest that this is due to a preference on the side of the speaker to place unexpected material – such as corrective content – in a position that is prominent in itself, which they take the preverbal position to be because unlike the post-verbal position it does not require any additional prosodic marking. On the basis of these findings Skopeteas & Fanselow suggest that the preverbal focus position is not targeted by narrow foci on the basis of an operator [+contrast] but that this movement is optional in that it produces alternative linearizations that are chosen in discourse to satisfy stylistic or prosodic preferences. The alternative postverbal position is derived by (optional) movement of the (originally clause-final) verb. The study also contains a thorough discussion of the basic word order in Georgian.

    Molnár & Winkler (*Edges and gaps: contrast at the interfaces*) suggest that elements in the left periphery all share one characteristic, viz. *coherence*, which means

that they are anchored in previous discourse. Non-contrastive elements in the left periphery are anchored – or continued – from previous discourse in the sense that referents (or lexical material) are identical with or semantically entailed by previous discourse. Contrastive elements are also anchored in previous discourse by virtue of being related to the same set of alternatives or the same scale as previous material. To implement this coherence aspect of both contrast and given material, Molnár & Winkler propose a syntactic feature [C] which can be valued for contrast or for continuity and which is responsible – depending on the language – for the movement of contrastive or continuous material into a ContrastP (contrastive material) and a TopP (continuous material) as for instance in Finnish, or into a ConP (contrastive or continuous material) as for instance in verb-second languages. For contrast-related movement Molnár & Winkler further assume that it is accompanied by destressing or deletion of given or redundant material in the clause, which enhances the contrastive interpretation of the non-deleted material. They argue that this is the case in various cases of ellipsis, where contrast movement and deletion interact with a prosodic alignment constraint (Truckenbrodt 1995, Selkirk 2005). The combined effects and workings of contrast-triggered movement to the left periphery (edge) and destressing/ellipsis (gap), Molnàr & Winkler formulate in their *edges and gaps hypothesis*.

Frey (*Ā-Movement and conventional implicatures: about the grammatical encoding of emphasis in German*) also investigates in detail the information-structural status of elements in the left periphery in the clause. He assumes that the German prefield can be filled in two different ways. The first is by formal movement, which is movement of the highest element in the adjacent middle field to the prefield triggered by an EPP-feature on the highest head in the clause. The second is Ā-movement triggered by the contrastiveness of the element to be moved there. Thus, unlike Horvath but like Molnár & Winkler, he assumes that discourse notions are directly encoded in the syntax. He goes on to investigate the precise semantic-pragmatic characteristics of the Ā-moved phrase and argues that it is a specific kind of contrast that is involved. A constituent α containing a stressed subconstituent β is Ā-moved because there is a set of ranked alternatives to the denotion of α varying in the denotation of β such that α is ranked highest by the speaker in this set. The ranking is based on the notion of emphasis, where the precise criterion for the ranking – expectedness, likelihood, relevance, truth – is determined by the context. The evocation of the ranked alternative set and the status of the denotation of the Ā-moved constituent is argued by Frey to be a conventional implicature along the lines of Potts (2007). Frey furthermore argues that so-called focus scrambling to the top of the German middle field also is an instance of the Ā-movement he investigates thus assimilating the two apparently different phenomena. Widening the empirical domain even further to parallel, elliptic structures such as gapping or right node raising, Frey argues that for these there is no evidence for the implicature-based contrast associated with Ā-movement to the left periphery. These constructions information-structurally involve focus (and maybe topics with an additional focus feature), where focus is meant in the alternative-eliciting sense.

Konietzko & Winkler (*Contrastive ellipsis: mapping between syntax and information structure*) take up the edges and gaps hypothesis proposed by Molnár & Winkler (this volume) and argue that it is at the heart of *contrastive ellipsis*, a cover term they use for gapping and bare argument ellipsis (stripping). They assume that contrastive ellipsis is derived by the movement of contrastive material to the edge of vP

or CP and the deletion of given material, which is contained in the vP. Their paper has two main objectives. First, it argues that there are two subtypes of bare argument ellipsis: contrastive topic ellipsis – involving a contrastive topic with a focus that comes with that contrastive topic; and contrastive focus ellipsis – involving a contrastive focus only. The contrastive topic and the contrastive focus in these subtypes occur in different positions in the clause, which is evidenced for instance by their different position with respect to negation and sentential adverbs. The second objective of the paper is to show that the information-structural difference between the subtypes interacts with the prosodic marking of these structures. If a subject is to be interpreted as a contrastive focus that subject as well as its contrastive antecedent in the non-elliptic clause must receive an accent different from the default contour (H* with a fairly high rise instead of L*H). The other material in the clause is deleted or deaccented. Without the particular contrastive accent the information structure is interpreted as non-parallel in antecedent and ellipsis clause, which results in low acceptability ratings. Consequently, the authors argue that contrastive ellipsis is subject to far-reaching parallelism requirements thus corroborating and expanding earlier research into this matter.

Sudhoff (*Focus particles and contrast in German*) puts the prosodic marking of contrastive focus under close scrutiny in his experimental study. On the one hand, Sudhoff takes up the debate in the literature whether contrastive focus is marked with a prosody different from non-contrastive focus (see section 1 above). On the other hand, he investigates whether focus particles like *only* induce contrastive focus themselves or whether they associate with an a priori focus-background partition in the clause. The study consists of a production and a perception part. Sudhoff finds that contrastive focus, which in his study is instantiated by focus in corrections, differs prosodically from non-contrastive new information focus, which is elicited by non-corrective narrative discourses. The two types of focus differ both in categorical (accent type) and gradient (for instance higher f_0-peak, greater intensity) prosodic characteristics. Furthermore, Sudhoff shows that the presence or absence of a focus particle has no significant effects on the prosody of a sentence. He concludes from this that focus particles do not induce contrastive focus but associate with a given information-structural partition.

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