

Baloghné Nagy Gizella *Degrees of topicality in
Alignment Syntax**

0 Introduction

In syntactic literature, the term ‘topic’ is used much more narrowly than the general, pragmatic sense would suggest. Mainly it refers only to clause-initial elements in connection with certain fronting operations. From a pragmatic or discourse-oriented point of view, a gradient notion of topic is preferred to account for differences in strength, position and markedness, for instance. The aim of the present paper is to accommodate these findings in a system which operates with a linear order of items, and the position of elements is defined in relation to each other – without postulating fixed structural positions. Contrary to standard assumptions, the input is regarded as a set of conceptual units (CUs) instead of lexical items. Vocabulary insertion follows only after the evaluation of the ordering of CUs.

The structure of the paper is as follows. In Section 1, the foundations of the alignment system will be laid out. Section 2 begins with a short overview of the pragmatic literature related to the notion of topic, on the basis of which a group of features is presented to describe different types of topics. The main analysis includes these features and the constraints on clause and argument structure to derive various types of topicalisation in English, German and Hungarian. The conclusion summarises the main merits of the present approach.

1 Argument structure in Alignment Syntax

The theoretical background of the paper relies to a large extent on Newson (2010), and incorporates ideas about the form of constraints from Newson & Maunula (2006). First, we will sketch the basic notions of a theory that operates without lexical items in the input and uses conceptual units instead.

Alignment Syntax, first proposed in Newson (2004) works with alignment constraints used in Optimality Theory that position elements of a

* I’m grateful to László Varga and Marianna Hordós for their useful comments and to Mark Newson for reviewing earlier versions of this paper. Of course, all remaining errors are mine.

structure in relation to each other. This way, the notion of ‘phrase’ becomes unnecessary, as the grouping of elements follows from the constraint hierarchy. The alignment constraints laid out in the present paper come in two types: precedence constraints of the form $x P y$ (‘ x precedes y ’) or $x F y$ (‘ x follows y ’), and adjacency constraints like $x A y$ (‘ x is adjacent to y ’). In addition to these, faithfulness constraints will also be posited, which ensure the preservation of input items.

CUs with descriptive semantic content are the elements which have to receive direct realisations in the output, bearing lexical information; they can also be called ‘roots’. Another type of CU, termed ‘features’ in the present paper, fall into two basic types in my understanding, i.e. grammatical and discourse-functional. They are either realised as part of a lexical item, if a more specified description for a certain CU exists in the lexicon; or they are realised separately, embodying only grammatical information in this case (pronouns, auxiliaries, articles) or grammatical information enriched with discourse-relevant content (e.g. demonstratives).

The verb is surrounded by theta-features or ‘thematic type functional CUs’ (Newson 2010:15), incorporated in the verb in the output form. They determine the base positions of arguments, as their arguments are aligned with respect to them. I assume that the argument feature (abbreviated as [arg]) is another functional CU, a feature of nouns and nouns with prepositions. In the latter cases it is possible to think that the preposition stands for or bears the [arg] feature.

Adjuncts should also bear a functional feature [adj], which makes it possible to identify which root they modify, i.e. whether they modify the predicate or verbal root, thus functioning as constituents of a clause, or they modify a subconstituent like a noun or adjective. In cases of adjunct prepositional phrases, the preposition is taken to be the realisation of the [adj] feature.

The next issue, differences in the status of arguments, has been dealt with in the standard generative literature as well. The subject as a grammatical notion or as a functional feature has been widely used in former OT accounts. However, the present system tries to dispense with grammatical information in the input; moreover, as the input contains theta-role specifications, it would be redundant to introduce a subject feature as well. Thus, translated into terms of roots and features, I will take that root as the subject which is associated with the highest theta-role in the input, i.e. with θ_1 . Therefore, the subject will be marked as a root associated with the [arg₁] feature, or an [arg₁] feature alone together with additional discourse or functional features.

The presence of the subject is another issue: in my view, it is a universal requirement, which can be met not only by an overt lexical subject in the output but also with morphological markers on the verb, depending on

language type. What can be taken to be universal is the appearance of at least one argument connected to a verbal root in the input.¹ This has to be a general principle of the input, not a violable constraint in the hierarchy.

1.1 The position of arguments in a structure and in relation to a predicate

According to Newson (2010:20), a root (indicated by the symbol $\sqrt{\quad}$) which is spelt out as a verb with arguments is surrounded by theta-features.

‘Most of the time, thematic CUs are spelled out, along with others, by the root vocabulary item. Thus their positioning cannot be directly observed. However, under the assumption that the arguments they license are aligned with respect to them, the positioning of the arguments gives indirect information about how the CUs are ordered.’

It is these features that the arguments of a predicate aim to get close to, examples for two- and three-argument verbs are given in (1). Arguments are supposed to be as close to their thematic CUs as possible, $[\text{arg}_\alpha] A [\theta_\alpha]$.

- (1) a. $[\text{cause/agent}] \sqrt{\text{KILL}} [\text{theme/patient}]$
 b. $[\text{agent}] \sqrt{\text{GIVE}} [\text{beneficiary/goal}][\text{theme/patient}]$

Concerning the order of post-root thematic CUs, alignment constraints that demand adjacency of arguments to theta-roles do not give the desired results if one works without assuming the existence of domains. If adjacency violations are added up (reflected in the number of ‘stars’), the order of arguments is irrelevant, as the same number of post-root arguments incur the same number of adjacency violations.

Given a three-argument root, either a thematic CU or a (root plus) argument feature will intervene between an argument and its thematic CU correspondent. Structure (2) shows the predicate with three thematic CUs, and structures (3-4) show the possible realizations of argument structure with three non-pronominal arguments (with 1+1, and 0+2 violations of post-root adjacency, respectively).

- (2) $\theta_1 \sqrt{\quad} \theta_2 \theta_3$
 (3) $\sqrt{[\text{arg}_1]} \{ \theta_1 \sqrt{\quad} \theta_2 \theta_3 \} \sqrt{[\text{arg}_2]} \sqrt{[\text{arg}_3]}$
 (4) $\sqrt{[\text{arg}_1]} \{ \theta_1 \sqrt{\quad} \theta_2 \theta_3 \} \sqrt{[\text{arg}_3]} \sqrt{[\text{arg}_2]}$

¹ The existence of impersonal verbs does not contradict this statement: I assume that such predicates also require an argument with null semantic specification. That is why the argument feature is realized by a dummy pronoun in the output (*It's raining./ Es regnet.*)

However, adding up the distance of arguments from the root is necessary for the analysis: it can be applied to prevent intervening non-argument material to appear closer to the predicate than the arguments themselves. On the other hand, to derive the linear order of arguments relative to one another, additional precedence constraints will be needed, out of which the one referring to the first argument is treated here in detail, as we are mainly concerned with left peripheral structures.

1.2 Underlying word orders

First, it is essential to deal with the arrangement of the arguments around the root with respect to the thematic CUs forming part of the verbal root, before starting an analysis of a construction that changes this underlying order. This is clearly language-dependent and may be observed in basic structures like declaratives and embedded clauses.

In English, **arg₁ Root arg₂ arg₃** (arg_{4...x}) seems to be the right ordering. If we observe further structures (5), it will become obvious that the precedence of the subject in relation to the root or the corresponding thematic CU is a requirement which is never violated.

- (5) *Do I **look** like a low-fat cat?*
*Who **cares**?*
*How can I **eat** when I'm consumed with guilt?*
*I **washed** my underwear with my new red sweater!*
*The man is **screwing** in a light bulb.*
*I'm going to have to **get up**.*

The other arguments are able to switch sides, e.g. with topicalisation, question formation etc., so the constraint referring to them must be lower-ranked, compare (6-7). In setting up the constraints, the thematic CU will be represented by the symbol θ , with additional indexing (θ_i) when referring to certain arguments.

- (6) ARG₁ P θ_1
 (7) ARG₂ F θ_2 , ARG₃ F θ_3 ETC.

In German, I take the embedded verb-final word order as basic, one reason for it being that the lexical verb prefers the clause-final position not only in embedded clauses (8), but also with analytic verb forms (9): in such structures, the finite part of the verb takes second position, whereas the non-finite parts

are situated clause-finally.

(8) Ich weiß, dass Jon einen Artikel **geschrieben** hat / **schrieb**.

I know that Jon a paper written has/ wrote

(9) Jon **hat** in zwei Monaten einen Artikel **geschrieben**.

Jon has in two months a paper written

Here, arguments are able to switch sides in relation to the corresponding θ feature, even the first argument can be preceded by its thematic CU, for instance in a syntactic topicalisation structure or in a non-subject question. Thus, as all arguments precede the root, only one alignment requirement is needed.

(10) ARG P θ : Arguments precede their corresponding thematic CU.

However, if we look back to the English examples and bear in mind that alignment to thematic CUs cannot easily determine the order of arguments relative to one another, this must be given as a precedence requirement like in (11). This is especially needed for German, as the ordering of arguments relative to the verbal root does not give any clue about their internal order. In English, the primacy of the first argument is secured by its preroot position in contrast to other arguments.

(11) ARG₁ P ARG_{2,3...x}

For Hungarian, the verb-initial order is considered to be basic in a neutral sentence without emphasis on any of the arguments: ‘The lexical core of the predicate in Hungarian is a verb phrase. It is assumed to be verb initial, with the arguments following the verb in an arbitrary order’ (É. Kiss 2002:27). Principles on discourse functions are responsible for side-switching of arguments. We posit (12) to capture the verb–argument ordering.

(12) ARG F θ : Arguments follow their corresponding thematic CU.

Apart from the ordering of arguments with respect to the thematic CUs, it also has to be observed that the subject tends to be adjacent to the finite, or tensed, part of a verbal complex, i.e. it does not come directly before the verbal root, to be adjacent to the corresponding thematic CU, rather it precedes all verbal items. The same can be observed in German matrix clauses as well.

- (13) Jon **wrote/ has written** a paper in two months.
 Jon **hat** in zwei Monaten einen Artikel **geschrieben**.

To reflect this state of affairs, the position of the first argument, i.e. of the subject, will be defined with respect to the tense feature borne either by the finite verb or by the first auxiliary in a verbal construction. The adjacency requirement will be of importance when accounting for inversion structures, which is demonstrated for German, where topicalisation also involves inversion.²

- (14) ARG₁ P [TENSE]: the highest argument in the thematic hierarchy precedes the finite tense CU.
 (15) ARG₁ A [TENSE]: the highest argument is adjacent to the finite tense CU.

2 Aspects of topicality

É. Kiss's (2007) account is an example for the structural definition of topic, according to which 'the topic and the focus represent two distinct, optionally filled structural positions in the left periphery of the Hungarian sentence associated with logical rather than discourse functions' (p.78). Another definition by É. Kiss implies a givenness feature of topics, i.e. that they have to represent old information, which is already given in the context. According to this definition, the main function of the topic is foregrounding: this shows that topicalisation reflects some kind of prominence.

(16) *The topic function*

The topic foregrounds an individual (a person, an object, or a group of them) from among those present in the universe of discourse as a subject of the subsequent predication. (É. Kiss 2002:9)

To arrive at a better understanding of topicality, I find it helpful to review pragmatically-oriented approaches as well, as they look at sentence structure from a different aspect and treat discourse functions in a more detailed way than syntactic analyses. Of course, a certain degree of generalization is necessary in the syntax to capture structural parallels. However, in the case of discourse functions, a more refined characterization of the functions is needed, as the well-established topic-focus or topic-comment partitions do not seem to

² The discussion of inversion in English does not fit in the scope of the present paper but follows easily from the appropriate hierarchy of the constraints.

be appropriate to cover all cases and account for tendencies like frequency of topicalisation structures. More precisely, I aim at laying down a group of discourse features which will make an account of syntactic topicalisation possible that reflects the usage and frequency of topicalisation in the languages under discussion.

In the sense of the notion of BID (Balanced Information Distribution), it seems to be more appropriate to deal with a hierarchy of information values than with a binary opposition of given/new information (Doherty 2005). Doherty works with an importance scale of information, with the following values: information of high, lower, lowest relevance, represented with numbers: 1 2 3. Given information, i.e. given in the immediately preceding context, is of lowest relevance; resumed information, which is already mentioned but not immediately given, is higher on the importance scale. New information and contrastive focus represent highest relevance. The ideal ordering of these values is argued to be 2 3 1, which points to the fact that fronted topics represent resumed rather than given information, givenness being a feature of non-prominent topics. The functions of a topic are seen as establishing contrastive or partitive discourse relations and discourse linking – in my opinion, they can be subsumed under the terms aboutness and contrast.

In many cases, the terms ‘topic’ and ‘focus’ are used as denoting opposite notions. However, it is important to see them from a wider perspective of information structure tiers in order to understand that the relations of discourse functions and levels of information structure are more complex than standard syntactic literature suggests.

On the basis of Molnár (1991), there are three levels of communicative structuring, i.e. an utterance can be viewed from three different pragmatic aspects: from the aspect of presentation, that of the sender/speaker and that of the recipient/hearer. On the level of presentation, an utterance is structured into a topic and a comment part; from the sender’s perspective it consists of background and focus, and on the recipient’s side it is built up from a theme and a rheme. From this it follows that there is not necessarily a one-to-one relationship between the discourse functions on different levels, but there is interaction and overlap between tiers and notions, which means, among others, that the functions of topic and focus do not mutually exclude each other, for instance, topics can have focal features, which raises their prominence.

Molnár also claims that the term ‘newness’, used extensively in connection with focus, needs a new interpretation, as foci are not always ‘new’ in the discourse, and, on the other hand, new topics seem to exist as well. Moreover, prominence and highlighting are not necessarily parallel with focussing (Molnár 1998), cf. Givón (1983), who also mentions prominent topics.

Geluykens (1992) seeks a definition of topicality, givenness, and

recoverability in connection with left dislocation constructions. He remarks that defining givenness is problematic, as it can refer to both the hearer's and speaker's knowledge, general background knowledge or knowledge arising from the context. Thus, he rather sticks with the term 'recoverability', i.e. information which is derivable from the discourse context (ibid., p.12). Note that it is also a scalar notion. Topicality of an item is defined as its occurrence in the subsequent discourse (ibid., p.16).

This view is also supported by Givón's (1983) Topic Continuity, which measures the topic status according to its values in the context and establishes degrees of topicality from weak to strong (or prominent) topics. Topics vary regarding their newness or predictability, and in connection with these, regarding their prominence. These differences have syntactic consequences as well.

What we can conclude is that increased prominence and unpredictability correlate with stronger syntactic marking. While absolutely predictable topics are expressed by weak forms, i.e. by zero marking and pronouns, less expectable topics, i.e. those newly introduced or taken up again or causing topic shift, are represented by syntactically marked fronting structures. This observation is of importance as it demonstrates that, apart from familiar topics, prominent and new, fairly unpredictable topics also exist, which receive strong syntactic marking, for instance they undergo Left Dislocation.

2.1 The features of a syntactic topic

To account for distinct types of topic in the analysis, I am using the following discourse-oriented features in addition to the syntactic 'argument' feature: aboutness, newness and contrast, referred to as 'prominence' elsewhere (Nagy 2008).

'Aboutness' is understood here as the pragmatic topic feature, which means that an element marked as such will not necessarily be fronted in all types of languages. For instance, I will argue that in English and German only prominent, i.e. 'stronger' or more emphasized topics, become also syntactically marked. In Hungarian, on the other hand, it seems that syntactic topic promotion is a less marked operation as it places the logical subject of the sentence in an initial position. Gécseg & Kiefer (2009) point out substantial differences between topics in Hungarian and English, but remark that both can be captured by the notion of 'aboutness'.

'Newness' (Choi 2001) is a typical feature of foci, whereas topics are usually non-new. It appears to me that the notion of 'newness' covers both pragmatic roles an element marked as such can play, on the basis of Molnár (1991): (i) an element is unknown, mostly for the hearer, in the discourse or

taken up again after a pause; (ii) an element has features of a focus: it is highlighted in the context, intended to be prominent, but not necessarily newly introduced.

‘Contrast’ stands for a kind of prominence, too, which, combined with topicality, leads to (stronger) syntactic marking of the topic. The term *contrastive topic* ‘includes frame- or discourse-setting, implicational and partial topics’ (Féry 2006: 6), the common ground of these varying functions being that its interpretation implies a choice from a set of alternatives.

Starting out from the assumption that the discourse function of an input element is represented as a feature or a set of features, the following bundles of discourse features seem to be possible:

(17) *Possible combinations of discourse features*

| | | |
|----------------------------|---|---|
| [new] ([contrast]) | ⇒ | discourse-new element or focus |
| [about] ([contrast]) | ⇒ | discourse-old element or topic |
| [new] [about] ([contrast]) | ⇒ | new topic, typically surfacing as Left Dislocation |
| no discourse features | ⇒ | neutral element |

It is important to mention that the aboutness and newness features seem to be independent, i.e. they can appear independently of the other discourse features; however, the contrast feature appears to be bound, it does not have an interpretation on its own, only in combination with the aboutness or newness features, marking a prominent/contrastive topic or focus. To capture this, I propose the following constraints:

(18) [contrast] A [about]
[contrast] A [new]

The last issue concerns the features of an item that surfaces as a syntactic topic. It is well-known that syntactic argument topicalisation is a rather marked option in English, a clearly subject-prominent language. The situation is similar in German. Translated into terms of features, a discourse topic has to be prominent (i.e. more marked or emphasized) to become a syntactic topic, thus the features required for topic fronting will be [about] and [contrastive]. In Hungarian, on the other hand, topicalisation is less marked pragmatically than in English and German, as Hungarian word order is primarily organized on the basis of discourse requirements rather than functional features. This topic-prominent feature of Hungarian is to be reflected in the assumption that the [about] feature alone will be enough for triggering syntactic topicalisation. This difference might be formalized as in (19-20), directly referring to

features: the precedence constraints demand that the topic precedes other arguments and/or adjuncts, and the finite verb bearing the [tense] feature. According to the adjacency requirement, a topical item has to be next to the finite tense. It immediately strikes the eye that the constraints referring to English-type topicalisation are complex.

(19) *English and German*

- a. [about]&[contr] P [arg][adj], [about]&[contr] P [tense]
- b. [about]&[contr] A [tense]

(20) *Hungarian*

- a. [about] P [arg][adj], [about] P [tense]
- b. [about] A [tense]

To avoid using a conjoined or otherwise complex constraint for English and German, it is supposed that the contrast feature is responsible for overt fronting of the topic; therefore the constraint can be put as (21). Of course, the question of oversimplification arises, but the same contrast feature can be made responsible for focus fronting if it is combined with a [new] feature. The state of affairs in a discourse-oriented language is reflected by (21b), where the aboutness feature triggers syntactic fronting. This constraint is also existent in English and German, but ranked lower.

- (21) a. [contrast] P [arg][adj]; [contrast] A [tense]
 b. [about] P [arg][adj]; [about] A [tense]

As mentioned earlier, it is unthinkable from an interpretational point of view that the contrast feature appears on its own – thus, it is a rather welcome option not to state the same generalization twice but keep the form of the constraints as simple as possible.

There is independent evidence for the working of the weak topic constraints, i.e. those referring only to the aboutness feature, even in connection to arguments in German. It has been observed that there is a sentence-medial topic position for weaker elements as in (22), the existence of which is argued for in Frey (2004, 2005). This position is assumed to be an adjoined position, directly above sentential adverbials. Compare sentences (22a) and (22b): if ‘*Hans*’ is a topic constituent, only (22a) sounds correct, in which the NP precedes the sentence adverbial ‘*zum Glück*’.

- (22) Context: Da wir gerade von Hans sprechen. ('Speaking about Hans...')
- a. Nächstes Jahr wird den Hans *zum Glück* eine vornehme Dame heiraten.
 next year will the_{acc} H. luckily a fine lady marry
- b. ?/*Nächstes Jahr wird *zum Glück* den Hans eine vornehme Dame
 heiraten. (Frey 2005:7)

If the [about]P[arg][adj] and [about]A[tense] constraints are ranked under the argument constraint which demands that arguments follow the predicate or the subject argument, the adjacency constraint can still have the effect of putting an [about] marked argument first post-verbally among the other arguments. This seems to be an emergence of the unmarked effect: it shows that the weak topic constraints are not unnecessary in the constraint hierarchy of a language that fronts only prominent topics.

A piece of evidence for the fact that the [contrast] feature is able to trigger movement is presented in Neeleman et al. (2009). The authors list differences between A-Scrambling and A'-Scrambling: only contrastive elements, regardless of their being topic or focus, can take part in A'-scrambling. The fact that topic, focus and contrast show independent syntactic effects, and that a generalisation can be made which refers to contrastiveness alone, it must have independent CU status.

2.2 The language-specific analyses

In this section, an analysis of syntactic topicalisation in English, German and Hungarian will be put forward within a feature-based alignment system. The main purpose of the section is to show that with the use of alignment constraints referring to argument structure and discourse relations, it is possible to arrive at a model that is able to capture differences in topic strength or prominence and reflect frequency and markedness facts.

When developing a system based on abstract linguistic units, the question of insertion and deletion must be touched upon. For the sake of economy of evaluation, it is assumed that insertion of non-input material cannot take place at all; every lexical item, which surfaces in the output must be the reflex of at least one CU contained in the input. Deletion, on the other hand is a possible option to satisfy certain constraints, therefore it has to be restricted. The following requirement is a general faithfulness constraint against deletion, which ensures among others that discourse-related features that demand displacement from argument position will not be deleted, to avoid the violation of constraints regulating basic argument order.

- (23) FAITH(CU): input CUs or features must be present in the output.
 Abbreviated to FAITH in tableaux.

To represent the underlying word orders, we will apply the constraints referring to the position of arguments in relation to the verbal root and its thematic CUs (ARG F Θ , ARG P Θ), the finite tense (ARG₁ P [TENSE], ARG₁ A [TENSE]) and one another (ARG₁ P ARG), as discussed in section 1.1 and 1.2.

2.2.1 English

The main characteristics of English topicalisation to be accounted for are the following: (i) the subject is always immediately preverbal, thus the subject constraints dominate the topic constraints; (ii) the subject is preceded by the topic, which means that neither the topic nor the subject feature is easily underparsed, therefore the relevant faithfulness constraint is ranked highest. Furthermore, this latter ranking also ensures that (iii) multiple topicalisation is possible in English.

In (24b) it is demonstrated what an input that is made up of conceptual units might look like. The block capitals stand for a bundle of semantic content, which constitutes a root, as in Newson (2010). It is surrounded by different kinds of functional CUs, representing grammatical, thematic or discourse-related features. For ease of legibility, from now on clauses will be represented in their actual output form with indexes indicating the relevant functional CUs, as in (24c).

- (24) a. The cat_{topic}, Jon_{subject} likes.
 b. [definite][CAT][about][contrast] [JON][arg₁] [tense][θ_1][LIKE][θ_2]
 c. The cat_{[about][contrast]} Jon_{arg₁} likes.

Tableau 1: *English argument topicalisation*

- a. The cat_{Top}, Jon_{arg1} likes
 b. Jon_{arg1} likes the cat_{Top}.
 c. Jon_{arg1}, the cat_{Top}, likes.
 d. The cat_{Top} likes Jon_{arg1}.
 e. The cat_{Top} likes Jon.
 f. Jon_{arg1} likes the cat_[about].

| Jon _{arg1} cat _[about] [contrast] | FAI TH | ARG ₁ P [TENSE] | ARG ₁ A [TENSE] | [CONTR] P [ARG] [ADJ] | [CONTR] A [TENSE] | ARG F \emptyset | ARG A \emptyset |
|---|-----------|-------------------------------|-------------------------------|-----------------------------|-------------------------|----------------------|----------------------|
| a. | | | | | * | ** | * |
| b. | | | | *! | | * | |
| c. | | | *! | * | | ** | * |
| d. | | *! | | | | * | |
| e. | *! | | | | | * | |
| f. | *! | | | | | * | |

On the evaluation of the structures: deletion of an argument and the contrast features violates FAITH in e. and f., respectively, although it would be an option to avoid topic fronting, but this is disfavoured here. The constraints are able to define the exact position of the topic: it can neither be left in situ like in b., nor can it be preceded by the subject (c.), as this violates the constraint that places the topic in front of other arguments and adjuncts. It is assumed that the finite verb, auxiliary or main verb incorporates the tense feature, therefore adjacency to it satisfies adjacency to [tense]. Sentence d. is ruled out, as the subject is in a post-root position.

Argument topicalisation is a relatively marked structure in English. In written texts, very few such structures can be found, if any. Normally, the subject is chosen in a way that it acts like a discourse topic, linking the relevant sentence to the pragmatic context. If we find fronted structures, these are mostly adverbial and prepositional phrases functioning as adjuncts, producing more frequent and less marked structures.³

(25) *In a drawer behind the counter* Mr. Braidford keeps sets of guitar strings.

(26) *At home* we have an album of Julie London's [...]

(Sting 2003:60-61)

³ These findings are stated as a result of a small-scale informal analysis of scientific and literary texts in English and Hungarian.

Because of their naturalness, frequency and lack of extra intonation, I assume that these structures demonstrate topicalisation of weaker topics, something which could be characterized by the [about] CU alone. The corresponding constraints that demand the fronted position of aboutness are repeated here.

(27)[ABOUT] P [ARG][ADJ], [ABOUT] A [TENSE]

The results are as follows: a feature bundle containing an aboutness feature is fronted only if the item does not bear an argument feature as well. Adjuncts do not violate the ordering of arguments on the basis of the thematic hierarchy, thus their fronting can be less 'costly'. Both structures violate ARG F \emptyset as the first argument is in a pre-root position, which is demanded by the higher tense-adjacency constraints.

As no contrast feature is present in the structures under discussion, I leave out the corresponding constraints from the following tableau for the sake of clarity.

Tableau 2: *Adjunct topicalisation in English*

- a. Yesterday, they went to the cinema.
- b. They went to the cinema yesterday.

| they _{arg1} go _{01,02} [past] cinema _{arg2} yesterday _[about] | FAITH | ARG ₁ P [TENSE] | ARG ₁ A [TENSE] | ARG F \emptyset | [ABOUT] P [ARG] [ADJ] | [ABOUT] A [TENSE] |
|--|-------|-------------------------------|-------------------------------|----------------------|-----------------------------|-------------------------|
| a. | | | | * | | * |
| b. | | | | * | *! | * |

The question arises whether this ranking would not cause the fronting of all weak topics in English and produce Hungarian-like word orders. As the constraints regarding the aboutness feature are ranked lower than the general argument placement constraint, which favours the postverbal position of arguments, weak argument topics will never undergo fronting.

2.2.2 German

In accordance with the strict verb-second character of German, either the subject or the topic precedes the finite verb, and only one topic is allowed to be fronted. This might point to the fact that the subject feature is underparsed

when there is a topic in the clause, as has been analysed earlier, e.g. in Nagy (2008).

However, this analysis cannot account for the immediately post-verbal position of the subject with a fronted topic (28a), focus (28b) or wh-item (28c). If the subject feature were simply missing from these structures, nothing would distinguish the subject from the other arguments; hence its position would be less fixed (subject in boldface in the examples below). Therefore, the appropriate analysis is to place ARG₁ A [TENSE] ('subject adjacent to tense') higher than ARG₁ P [TENSE] ('subject precedes tense'), as this ranking provides the so-called 'side-switching' effect, i.e. if an element cannot be on the prescribed side of the host, the second best option is to stay next to it, but on the other side.

- (28)a. Die Birnen_{TOP} kaufte **ich** im Bioladen.
 the pears bought I in the bio-shop
- b. Mit JÖRG_{FOC} ist **Susi** ins Kino gegangen.
 with Jörg has Susi to the cinema gone
- c. Mit wem_{wh} ist **deine Schwester** ins Kino gegangen?
 with whom has your sister to the cinema gone

If there are more topic-marked phrases, only one will surface as the syntactic topic, since multiple topicalisation is not attested in German. Presumably, the superficial topic features will be deleted. This can be achieved by ranking the constraints referring to the contrast feature higher than the FAITH constraint.⁴

In sum, the winning candidate, a., in Tableau 3 satisfies the topic constraints by having the topic in the immediately preverbal position. Candidate b. fails because its argument feature has been deleted. Candidate c. demonstrates that being adjacent to the finite part of the predicate is more important for the subject than being in a preverbal position. Candidate d. shows English-type topicalisation, which fails on the contrast-tense adjacency requirement. In candidate e., the contrast constraints are vacuously satisfied by deletion of the feature, but it fails on faithfulness.

⁴ Note that this ranking will also rule out multiply contrastively dislocated elements as well, which is in line with the empirical data.

Tableau 3: *German argument topicalisation*

- a. Den Hund_{[about][contr]} _[tense]mag Jon_{arg1}
 the dog_{acc} likes Jon
 b. Den Hund_{[about][contr]} mag Jon.
 c. Jon_{arg1}, den Hund_{[about][contr]}, mag.
 d. Den Hund_{[about][contr]}, Jon_{arg1} mag.
 e. Jon_{arg1} mag den Hund_[about].
 f. Jon_{arg1} mag den Hund_{[about][contr]}.

| mag _{tense} , Jon _{arg1} , den Hund _{a, c} ⁵ | [CONTR] A [TENSE] | [CONTR] P[ARG] [ADJ] | F A I T H | ARG ₁ A [TENSE] | ARG ₁ P [TENSE] | ARG P \emptyset | ARG A \emptyset |
|--|-------------------------|----------------------------|-----------------------|-------------------------------|-------------------------------|----------------------|----------------------|
| a. | | | | | * | * | |
| b. | | | *! | | | | |
| c. | | *! | | * | | | * |
| d. | *! | | | | | | * |
| e. | | | *! | | | * | |
| f. | | *! | | | | * | |

On the basis of corpus studies, Doherty (2005) concludes that German word order is pragmatically determined in contrast to English. The aims of this section are, on the one hand, to reflect the fact that topicalisation of non-arguments – like adverbs of time and place among others – is less ‘costly’ and therefore more frequent in German than topicalisation of argument material; on the other hand, the standard subject–finite verb order has to be preserved in constructions where there is either no about-marked adjunct or argument (Tableau 5) or there is an about-marked argument without a [contrast] feature, corresponding to a weak argument topic, which has to be left in situ, as in the structures of Tableau 6.

Before starting with the analysis, a crucial difference to English clause structure has to be pointed out. In German, the lexical root predicate is in the final position, not only in embedded structures but sometimes in matrix ones as well, if the finite verb consists of more than one output item. Therefore, it is not sufficient in German to define the position of the subject only with respect to the predicate/finite verb, as the subject has a relatively stable position clause-initially in both matrix and embedded clauses, whereas the finite part of the verbal complex radically switches positions. Parallel to the hierarchical

⁵ The [about][contrast] feature combination will be abbreviated to ‘a, c’ in tableaux for reasons of space.

order of thematic roles, a similar constraint is proposed that ensures the initial position of the subject among other arguments. It holds in all clause types.

(29) ARG₁ P ARG: the first argument precedes other arguments of the same root.⁶

The purpose of the following tableau is to demonstrate that adjunct topicalisation, which is a common means of sentence organization in German, is achieved by fronting a weaker topic than in the case of argument topicalisation. This set of constraints, including ARG₁ P ARG is ranked lower than the alignment constraints referring to [contrast], thus they do not affect the outcome of contrastive topicalisation.

Tableau 4: *Fronted weak adjunct topic (frame-setting function)*

- a. Gestern_[+about] ging ich ins Kino.
 yesterday went I to the cinema
 b. Ich ging gestern_[+about] ins Kino.

| | ARG ₁ P ARG | [ABOUT] A [TENSE] | ARG ₁ A [TENSE] | [ABOUT] P [ARG] [ADJ] | ARG ₁ P [TENSE] |
|------|---------------------------|-------------------------|-------------------------------|-----------------------------|-------------------------------|
| ☞ a. | | | | | * |
| b. | | | | *! | |

⁶ This is not an ad hoc constraint, similar requirements are supposed to exist to control the ordering of other arguments, e.g. theme and recipient both in English and German (ARG₂ P ARG_{3,4...x}, ARG₃ P ARG_{4,5}). From our point of view, however, they are of less relevance to the present analysis and will not be dealt with here.

Tableau 5: *Structures without an aboutness or contrast feature*

- a. Ich_{arg1} ging gestern ins Kino.
I went yesterday to the cinema
b. Gestern ging ich_{arg1} ins Kino.

| | ARG ₁ PARG | [ABOUT] A [TENSE] | ARG ₁ A [TENSE] | [ABOUT] P [ARG][ADJ] | ARG ₁ P [TENSE] |
|------|-----------------------|----------------------|-------------------------------|-------------------------|-------------------------------|
| ☞ a. | | | | | |
| b. | | | | | *! |

Tableau 6: *Weak argument topic*

- a. Ich_{arg1} kaufte gestern das Buch_{about} .
I bought yesterday the book
b. Das Buch_{about} kaufte ich_{arg1} gestern.
c. Ich_{arg1} kaufte das Buch_{about} gestern.
d. Ich_{arg1} das Buch_{about} kaufte gestern.

| | ARG ₁ P ARG | [ABOUT] A [TENSE] | ARG ₁ A [TENSE] | [ABOUT] P [ARG][ADJ] | ARG ₁ P [TENSE] |
|------|---------------------------|----------------------|-------------------------------|-------------------------|-------------------------------|
| a. | | *! | | * | |
| b. | *! | | | | * |
| ☞ c. | | | | * | |
| d. | | | *! | * | |

The last evaluation also formalises Frey's (2004) observation about sentence-medial weak topics, mentioned above in section 2.1. If the weak argument topic is more to the left in the post-verbal domain, i.e. it is closer to the finite verb as in candidate c., the adjacency constraint referring to simple aboutness topics, [ABOUT] A [TENSE], is satisfied. This might serve as an explanation why weak argument topics in German are placed above other material in the middle field, to occupy a position directly next to the finite verb.

2.2.1 Hungarian

To capture the [Predicate Argument Argument] word order in Hungarian, it has to be assumed that the feature borne by the highest argument does not play any role. In earlier accounts, this has been achieved by ranking both placement constraints above FAITH, which resulted in the deletion of the subject feature, as in Gáspár (2005) and Newson & Maunula (2006). Word order facts from

Hungarian also support this analysis: the subject has no fixed syntactic position postverbally, it behaves like the other arguments.

If ARG₁ P TENSE, ARG₁ F TENSE are ranked on an equal level in the hierarchy, no matter which of them is violated, it will always incur a one-star violation. Alternatively, they could also be ranked under the more general ARG F ⊙ that refers to all arguments and that favours them in a postverbal position.

As already discussed, a simple aboutness feature is enough to front a topic in Hungarian due to its discourse configurational nature: [ABOUT] P [ARG] [ADJ][TENSE] becomes prominent here. It is important to rank [ABOUT] P [ARG] [ADJ][TENSE] higher than [ABOUT] A [TENSE], as this allows multiple topicalisation and reflects the fact that the topic is not directly preverbal in Hungarian.⁷ For Hungarian, it is also important to define the position of topics not only in relation to other nominal items but also in relation to the finite verb, as arguments would follow the verbal root in unmarked cases. Therefore in the tableaux we will use those forms of the precedence constraints which refer to [tense]. The ones which refer to arguments and adjuncts are also operative but do not change the results significantly.

(30) A macskát_{about} szereti János.
 the cat_{acc} likes John

⁷ More precisely, in order to account for the fact that the focus is directly preverbal in contrast to topics, a focus-tense adjacency constraint has to be inserted above the aboutness-tense adjacency constraint in the hierarchy.

Tableau 7: *Hungarian topicalisation*

- a. A macskát_[about] szereti János_{arg1}.
 c. János_{arg1} a macskát_[about] szereti.
 d. A macskát_[about] János_{arg1} szereti.
 e. János_{arg1} szereti a macskát.
 f. Szereti a macskát_[about] János_{arg1}.
 g. A macskát_[about] szereti János.

| János _{arg1} a macskát _{arg2,abou} szereti _{θ1, θ2} | FAI TH | ARG ₁ P TENSE | ARG ₁ F TENSE | [ABOUT] P [TENSE] | [ABOUT] A [TENSE] | AR G F _θ | AR G A _θ |
|--|-----------|-----------------------------|-----------------------------|-------------------------|-------------------------|---------------------------|---------------------------|
| a. | | * | | | | * | |
| c. | | | * | *! | | ** | * |
| d. | | | * | | *! | ** | * |
| e. | *! | | * | | | * | |
| f. | | * | | *! | | | * |
| g. | *! | | | | | * | |

As both types of topics occupy a preverbal position in Hungarian, the question arises which of them gets closer to the predicate: a contrastive or a normal topic. The sentences below sound correct if the second noun is uttered with contrastive intonation – independently of the status and thematic roles of arguments, as the different orderings demonstrate. So simple topics tend to precede contrastive ones, i.e. the latter aim to be closer to the predicate.

(31) Péter_{top} Zsuzsival_{CTop} szívesen elmenne a bálba.

Péter_{nom} Zsuzsi_{-with} with pleasure pvp⁸-go the ball-to

(32) Zsuzsival_{top} Péter_{CTop} szívesen elmenne a bálba.

The ordering of the adjacency constraints can handle the situation: [CONTR] A [TENSE] should outrank [ABOUT] A [TENSE], this way the contrastive topics stays closer to the main verb, while both topics precede the verbal root, see Tableau 8.

⁸ The abbreviation 'pvp' stands for the preverbal prefix in Hungarian, also termed 'verbal prefix' or 'perfective prefix'.

Tableau 8: *Hungarian clause with a contrastive and a weak topic*

- a. Péter_{Top} Zsuzsinak_{CTop} odaadja az ajándékot.
 Péter_{nom} Zsuzsi_{dat} pvp-give the present_{acc}
 b. Zsuzsinak_{CTop} Péter_{Top} odaadja az ajándékot.
 c. Odaadja Péter_{Top} Zsuzsinak_{CTop} az ajándékot.
 d. Zsuzsinak_{CTop} odaadja Péter_{Top} az ajándékot.

| Péter _{arg1, about} Zsuzsinak _{arg2, a, c} ajándékot _{arg3} odaad _{θ1, θ2, θ3} | FAI TH | [CONTR] P [TENSE] | [ABOUT] P [TENSE] | [CONTR] A [TENSE] | [ABOUT] A [TENSE] | ARG F Θ |
|---|-----------|-------------------------|-------------------------|-------------------------|-------------------------|------------|
| a. | | | | * | ** | ** |
| b. | | | | ** | * | ** |
| c. | | *! | * | * | * | |
| d. | | | *! | * | | * |

In Kálmán (2001) the opposite is claimed, that is, the order of contrastive and normal topics is not bound preverbally. To me, (34) sounds rather unnatural, but it sounds better if the second topic receives some stress, too, which might force a contrastive reading on it. However, this state of affairs can also easily be modelled by the constraint set by ranking [CONTR] A [TENSE] and [ABOUT] A [TENSE] equally high, as in Tableau 9.

(33)_T János] [_{KT} a /levest] [\megette (, de a húst nem).⁹

John_{top} the soup_{CTop} pvp-ate but the meat not

(34)_{KT} A /levest] [_T János] [\megette (, de a húst nem).

the soup_{CTop} John_{top} pvp-ate but the meat not

(ibid. p.38, glosses added)

⁹ In (33) and (34) T stands for topic, KT for contrastive topic, and the symbols / and \ stand for rising and falling intonation, respectively.

Tableau 9: *Clause with a contrastive and a weak topic, free ordering of topics*

| Péter _{arg1} , about Zsuzsinak _{arg2} , a, c ajándékot _{arg3} odaad _{θ1, θ2, θ3} | FAI TH | [CONTR] P [TENSE] | [ABOUT] P [TENSE] | [CONTR] A [TENSE] | [ABOUT] A [TENSE] | ARG F Θ |
|---|-----------|-------------------------|-------------------------|-------------------------|-------------------------|------------|
| a. | | | | * | ** | ** |
| b. | | | | ** | * | ** |
| c. | | *! | * | * | | |
| d. | | | *! | * | | * |

3 Conclusion

It has been demonstrated on a small scale of examples that an alignment system based on linear constituent order is capable of modelling both basic and pragmatically determined word orders of several languages. Moreover, a parallel has been drawn between pragmatic weight and complexity of featural structure: in a language with discourse-based word order like Hungarian, one feature is sufficient to trigger topicalisation; whereas in languages in which topicalisation is a more marked structure, only additional input material can result in syntactic fronting. Utilising a wider range of discourse-oriented features or conceptual units in the analysis yields promising results in connection with topicalisation structures and opens new perspectives for further research.

References

- Choi, Hye-Won. 2001. Binding and Discourse Prominence: Reconstruction in "Focus" Scrambling. In Geraldine Legendre, Jane Grimshaw and Sten Vikner (eds.). *Optimality-theoretic Syntax*. Cambridge, Mass.: MIT Press. 143-170.
- Doherty, Monika. 2005. Topic-worthiness in German and English. *Linguistics* 43: 181-206.
- É. Kiss, Katalin. 2002. *The syntax of Hungarian*. Cambridge: Cambridge University Press.
- É. Kiss, Katalin. 2007. Topic and Focus: Two Structural Positions Associated with Logical Functions in the Left Periphery of the Hungarian Sentence. In *Interdisciplinary Studies on Information Structure 6*. / Caroline Féry, Gisbert Fanselow, and M. Krifka (eds.): *The Notions of Information Structure*. 69–81.
- Féry, Caroline. 2006. The prosody of topicalisation, ROA 774–0905. <<http://roa.rutgers.edu>>
- Frey, Werner. 2004. A medial topic position for German. *Linguistische Berichte* 198: 153–190. (available at: <http://www.zas.gwz-berlin.de/fileadmin/mitarbeiter/frey/MF-topic.pdf>)

- Frey, Werner. 2005. Pragmatic properties of certain German and English left peripheral constructions. *Linguistics* 43: 89-129. (available at: <http://www.zas.gwz-berlin.de/fileadmin/mitarbeiter/frey/PragmProperties.pdf>)
- Gáspár, Miklós. 2005. Coordination in Optimality Theory. PhD dissertation. ELTE Budapest.
- Gécseg, Zsuzsanna, Ferenc Kiefer. 2009. A new look at information structure in Hungarian. In *Natural Language and Linguistic Theory* 27, 583-622. (available at: <http://www.ucl.ac.uk/psychlangsci/research/linguistics/Events/Gecseg-Kiefer2009>)
- Geluykens, Ronald. 1992. From discourse process to grammatical construction. On left-dislocation in English. Amsterdam/Philadelphia: John Benjamins Publishing Company.
- Givón, Talmy. 1983. *Topic Continuity in Discourse. A Quantitative Cross-Linguistic Study.* Amsterdam/Philadelphia: John Benjamins Publishing.
- Kálmán, László (ed.). 2001. *Magyar leíró nyelvtan: Mondattan I. [Descriptive grammar of Hungarian: Syntax I].* Budapest: Tinta Könyvkiadó.
<<http://budling.nytud.hu/~kalman/arch/konyv01.pdf>>
- Molnár, Valéria. 1991. Das TOPIK im Deutschen und Ungarischen. (Lunder germanistische Forschungen 58). Stockholm: Almqvist & Wiksell International.
- Molnár, Valéria. 1998. Topic in focus. On the Syntax, Phonology, Semantics and Pragmatics of the so-called “Contrastive Topic” in Hungarian and German. *Acta Linguistica Hungarica* 45.1-2: 89-166.
- Nagy, Gizella. 2008. Left Dislocation in Alignment Syntax. In *Proceedings of the 16th International Postgraduate Conference in Linguistics.* Manchester: Department of Linguistics and English Language, The University of Manchester. 81-94.
- Neeleman, Ad, Elena Titov, Hans van de Koot, and Reiko Vermeulen. 2009. A Syntactic Typology of Topic, Focus and Contrast. In J. Van Craenenbroeck (ed.) *Alternatives to Cartography.* Studies in Generative Grammar series. Mouton de Gruyter. 15-51.
- Newson, Mark. 2004. Deforestation in Syntax. *The Even Yearbook* 6. Budapest: Department of English Linguistics, Eötvös Loránd University. 135-148.
<<http://seas3.elte.hu/delg/publications/even>>
- Newson, Mark And Maunula, Vili. 2006. Word order in Finnish: whose side is the focus on? *The Even Yearbook* 7. Budapest: Department of English Linguistics, Eötvös Loránd University. 1-35. <<http://seas3.elte.hu/delg/publications/even/2008.html>>
- Newson, Mark. 2010. Syntax first, words after: a possible consequence of doing Alignment Syntax without a lexicon. *The Even Yearbook* 9. Budapest: Department of English Linguistics, Eötvös Loránd University. 1-47.
<<http://seas3.elte.hu/delg/publications/even/2010.html>>
- Sting. 2003. *Broken music.* New York: The Dial Press.

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