

Gizella Mária Nagy *Multiple questions in English,
German and Hungarian*

*A cluster-based approach**

0 Introduction

In this paper I would like to present a cluster-based approach to multiple questions. The main idea behind the Cluster Hypothesis is that multiple movement to the same head does not happen by moving separate phrases with the same feature to the target one by one, but by forming a cluster of these elements and then moving this cluster to the target position. It will be shown through comparing English and German structures that cross-linguistic differences arise due to the availability of cluster formation in particular languages; in section 4, a cluster-based analysis of Hungarian multiple questions will be carried out.

1 Examples for clusters

This opening section serves to demonstrate that it is not exceptional to assume the existence of wh-clusters. On the contrary, cluster formation seems to be a cross-linguistically applied means of building multiple movement structures. In the following, some examples of word-level and phrasal clusters will be overviewed.

1.1 X⁰-clusters: clitic clusters

Clitic clusters in Romance languages are the most widely known types of cluster. The phenomenon called ‘clitic climbing’ reveals important facts about cluster formation.

In (1) the clitics are located in their base position, the lower clitic (*lo*) is closer to the other clitic (*te*) than to the matrix verb. Thus, the lower clitic first attaches to the higher one (2), i.e. they form a cluster; then together they move to the specifier of the projection of the matrix verb (3). Notice that the

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clitics cannot ‘change places’: a structure in which the originally lower clitic precedes the higher one is ungrammatical (4).

- (1) [CP₁ quiero [CP₂ permitirte [CP₃ hacerlo]]]]
 I-want to-allow-you to-do-it
 ‘I want to allow you to do it.’
- (2) [CP₁ quiero [CP₂ permitirtelo [CP₃ hacer t]]]]
 (3) [CP₁ **telo** quiero [CP₂ permitir t [CP₃ hacer t]]]]
 (4) * [CP₁ **lote** quiero [CP₂ permitir t [CP₃ hacer t]]]]
- (Sabel 2001: 534)

As can be seen in the Spanish example, the order of moved words is fixed, or, to put it differently, the order of elements in a cluster reflects the base order of arguments and adjuncts. It will be shown later, that this fixed order is only characteristic for languages which do not exhibit scrambling, object shift or other movement types which can alter the base order of phrases.

1.2 XP-clusters

The existence of focus-clusters is attested in Malagasy, an Austronesian VOS-language (Sabel 2001: 542). In (5) the basic structure is shown, from which the structure containing multiple foci (6) has been derived. The particle *no*, which obligatory co-occurs with focused phrases, serves as an indicator of focus movement.

- (5) [CP Manasa [DP ny lamba] [PP amin’ ity savony ity] Rabe]
 wash the clothes with this soap this Rabe
 ‘Rabe washes the clothes with soap.’
- (6) [CP [PP amin ity savony ity] [NP ny lamba][C’ no [TP sasan t t dRabe]
 [with this soap this]_{Foc} [the clothes]_{Foc} FOC.PART PASS.wash Rabe

In Malagasy and in many other languages, there are reasons to assume that there is only one focus position, as the CP or FocP contains only one specifier. In such analyses, deriving multiple movement structures would be problematic. However, according to the cluster-formation approach, the complex focus cluster counts as only one element, thus, it occupies a single specifier position.

If we look at the second example of phrasal clusters, Bulgarian wh-clusters, it can be observed that certain restrictions apply to their structures: in (7), the wh-subject must precede the wh-object, whereas in (8) the wh-object, i.e. the argument, must come in front of the wh-adjunct *kak* (‘how’).

- | | | | | | | | |
|-----|-----|------|--------|-------|--------|-------|----------------------------|
| (7) | koj | kogo | vidja? | | * kogo | koj | vidja? |
| | who | whom | saw | | whom | who | saw |
| (8) | koj | kak | udari | Ivan? | * kak | koj t | udari Ivan t? ¹ |
| | who | how | hit | Ivan | how | who | hit Ivan |

So, on the basis of observing the surface structure of some examples, it can be concluded that (i) there are certain ordering regularities within clusters, and that another major characteristic of clusters is that (ii) nothing can intervene between their elements.

2 The Cluster Hypothesis and the features involved in the process of cluster formation

In this section I present the Cluster Hypothesis, as laid down by Sabel (2001) in general (9) and by Grewendorf (2001) for wh-movement (10), and discuss the justifications for its formulation and their implications.

- (9) Cluster Hypothesis
A feature F that is attracted by K attracts a feature of the same type F.
(Sabel 2001:533)
- (10) Wh-Cluster Hypothesis
A particular feature of a wh-element acts as a checker for other wh-elements (wh-arguments as well as wh-adjuncts).
(Grewendorf 2001:87)

The motivation for cluster formation is the fact that an element that is itself attracted by a feature of a functional category can also attract elements with matching features and check off these features in a local relation. This relationship is defined in terms of Attraction in Sabel (3).

- (11) Attract F
K attracts F if F is the closest feature that can enter into a checking relation with a sublabel of K.
- (12) Closeness
B is closer to K than A if B c-commands A.
(Sabel 2001:533)

¹ The Bulgarian examples are taken from Boskovic (1999).

Thus, cluster formation always takes place prior to movement of its elements to the functional category with matching features.

2.1 Theoretical advantages

There are several theoretical advantages of assuming the existence of wh-clusters. First, no multiple positions have to be postulated in cases of multiple movement (e.g. multiple specifiers of CP), as for example in the accounts of Boskovic (1999) and Richards (1999): they work with multiple specifier positions and a ‘tucking-in’ type of adjunction² to overcome the problem. Second, by applying the Cluster Hypothesis, we can account for ordering variations within one language, which is problematic for most analyses.

2.2 The motivation for cluster formation: the features

As movement is a Last Resort operation, overt cluster formation is only allowed to take place if it is triggered by strong features. Moreover, the features triggering movement must reside both in the target and in the moving phrases, otherwise there would be no motivation for the moving phrases to cluster together.

Note that the motivation for cluster formation is not entirely clear in the approach of Sabel (2001); in Grewendorf (2001) it is spelt out in a more detailed way (see below). In the former account, although the notion of attraction is defined, it is not made clear what happens to the strong features of the moving elements in the course of cluster formation. Clearly, attraction cannot involve feature deletion of both phrases, as this would block further movement of the cluster. The last step, i.e. movement to [Spec, CP], is done by the whole cluster—if attraction and adjunction to the cluster would involve mutual feature deletion, there would be no features left on the entire cluster to check off or to be attracted by the C head. Perhaps there are more features at work here, although the authors only speak of one feature in case of one movement type, [+affix] and [+wh] respectively; or the features get checked but remain visible for further attraction.

Under minimalist assumptions wh-phrases have an uninterpretable feature [wh] and an interpretable operator feature [Q]. The latter matches the uninterpretable [Q] feature of a complementiser, which acts as a probe (Chomsky 2000). The uninterpretable [wh] feature of the wh-phrase makes it

² In Richards (1999) wh-phrases move to [Spec, CP] one by one, creating extra specifier positions by moving under other fronted wh-phrases.

active, as it is a P(peripheral)-feature, which is associated with movement to the periphery of a phase or clause. (Radford 2004: 419-421)

As has been mentioned, specifically for wh-movement, Grewendorf (2001) establishes a complex featural makeup of wh-phrases, which enables them both to be checkers and to be able to check their features. It is observed that in languages with cluster formation, the wh-phrases do not inherently possess quantificational force, as their morphological variants can be used as indefinites, for example. This means that they do not inherently possess a wh-operator feature [Q], but they are part of a DP that is headed by such a feature (13). This provides an operator position in the wh-phrases themselves, which therefore can function as targets of movement.

- (13) $[_{DP} \mathbf{Q}_{op} [_{D'} \text{wh-phrase}]]$
 $[\mathbf{Q}] \quad [\text{wh}]$

The distribution of the relevant features is as follows (14): the whole wh-phrase bears an interpretable [Q] feature, in accordance with Chomsky (2000). The operator head (D) bears the uninterpretable quantifier feature [Q]. The wh-item has a [wh] feature, this is attracted by the selectional Q feature of another operator head; the [wh] feature is deleted under checking.

- (14) $DP [Q_{+int}, Wh_{-int}]$
 $\quad \swarrow \quad \searrow$
 $D [Q_{-int}] \quad NP$ (Grewendorf 2001:96)

It has to be noted that the interpretable and the uninterpretable Q features of the phrase are different in nature, thus, they do not contradict each other. The uninterpretable Q is a selectional feature that attracts another XP; the interpretable Q feature stands for a semantic property of the wh-phrase. The uninterpretable Q and [wh] features are deleted under checking, e.g. if a lower wh-phrase attaches to one higher in the structure, its [wh] will be checked off and deleted. But this also means that the [wh] feature of the first wh-phrase in the cluster cannot be checked off by other wh-elements, as it functions only as a probe in the course of cluster formation. To get associated with a probe and to act as a goal, it has to move to a C head bearing a [Q] feature in the last step of the derivation.

There are two exceptions to feature-checking ability or possibility of cluster formation: (i) nonreferential adjunct wh-phrases and (ii) wh-phrases located in [Spec, CP] (on the basis of Sabel (2001) and Grewendorf (2001)). I discuss these two cases next, but only the first one will be directly relevant from our point of view.

It is important to make a distinction between referential and non-referential wh-adjuncts with respect to their cluster forming ability³: as referential wh-adjuncts (*where, when*) behave syntactically similar to wh-arguments and have referential properties, which enables them to function as generators of domains in multiple questions, it is plausible to assume that they, too, have a D-head with an operator position, thus, can function as wh-attractors. On the other hand, nonreferential wh-adjuncts (*why, how*) seem to have different extraction properties and are unable to function as generators of domain in multiple quantification. They are generally taken as not having referential properties and not containing a position for a variable. Translated into terms of features, they do not contain a D-head, i.e. a selectional feature that enables wh-feature attraction. This means that wh-adjuncts cannot function as attractors, only as attracted elements. Thus, the prerequisite for wh-cluster formation is the presence of a referential wh-phrase, as they contain D-heads which attract and check off features of other wh-phrases. This hypothesis correctly predicts the following phenomena: (i) wh-arguments always precede nonreferential wh-adjuncts in a wh-sequence, (ii) a derivation containing two nonreferential wh-adjuncts crashes (iii) reconstruction effects in the case of island violations.

The other exception from wh-attraction is a wh-item in [Spec, CP]: the reason for this is that adjunction to the head of a chain renders the chain non-uniform, as the head of the chain contains an element that is absent in the tail of the chain. Thus, the wh-cluster has to be fully formed before it takes its last movement step to [Spec,CP].

3 The availability of cluster formation: the difference between English and German questions

According to both accounts of the Cluster Hypothesis, cluster formation is a parametric property of wh-items (Grewendorf 2001) or of languages, i.e. it is not available in every language. Bulgarian with overt multiple wh-movement, Japanese with covert wh-movement and Malagasy with multiple focus movement are considered in Sabel (2001).

Apart from Bulgarian and Romanian, which exhibit overt multiple wh-fronting and Japanese, which is argued to have covert multiple wh-movement, German is also considered to be a cluster-forming language in Grewendorf

³ This distinction is made by Sabel (2001) but not spelt out in Grewendorf (2001), where in fact nonreferential adjuncts (*why, how, 'naze', 'weshalb'*) are meant when mentioning 'wh-adjuncts'.

(2001), although it exhibits single-wh-movement in multiple wh-structures like English. It is claimed that cluster formation and wh-movement is a combination of overt and covert instances of movement in German.

Certain morphological properties of wh-words serve as evidence for the availability of cluster formation. German wh-words can have an indefinite reading, which suggests that they are not inherently quantificational.

- (15) Gestern hat **wer** seinen Mantel vergessen.
yesterday, has someone_{nom} his coat forgotten
Someone left his coat here yesterday.
- (16) Gestern hat Peter **wen** überfahren.
yesterday has Peter someone_{acc} run over
Peter ran over somebody yesterday.

In English, wh-phrases are inherently operators, as they do not have an indefinite reading; therefore we expect that wh-cluster formation will not be possible.

In the following, the claim that German and English differ with respect to their wh-cluster formation ability will be examined. I will discuss two arguments, the first of which is mentioned in Grewendorf (2001), whereas the other follows from the hypothesised differences of the two languages.

3.1 Short Superiority effects

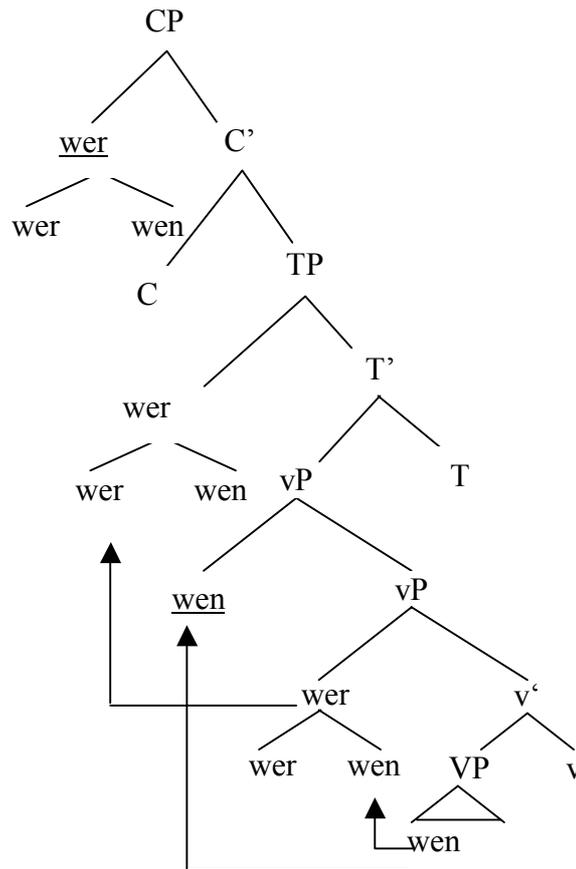
It is a well-known fact that ‘short’ Superiority effects⁴, i.e. Superiority effects within one clause, are not attested in German; i.e. we do not find subject-object asymmetry as in the English examples. The multiple questions in (17) and (18) contain both a subject- and an object-wh-phrase. The structure with the fronted subject wh-phrase (17) is correct in both languages, whereas sentence (18) in which the lower object wh-phrase precedes the other one is ungrammatical in English (18b.).

- (17) a. Wer liebt wen?
who_{NOM} loves who_{ACC}
b. Who loves whom?
- (18) a. Wen liebt wer?
who_{ACC} loves who_{NOM}
b. *Whom does who love?

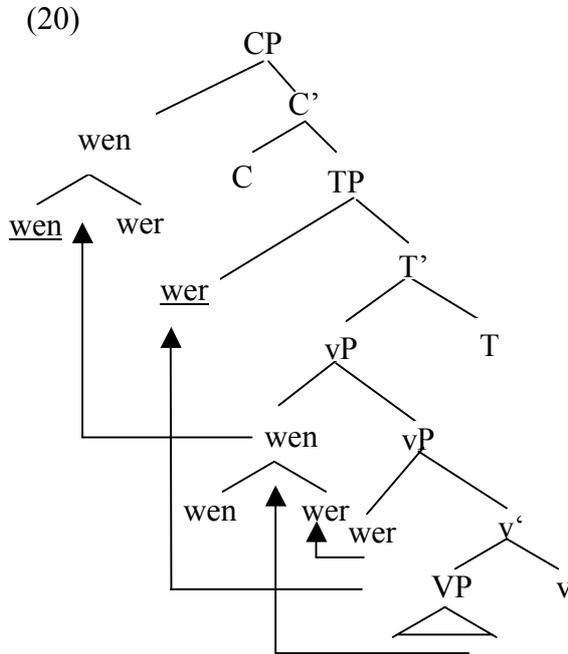
⁴ Superiority effect: If a question contains more than one wh-phrase, “it is the superior (highest) which moves to the front of the clause.” (Radford 2004: 479)

The German structures in (17a.) and (18a.) can be formed in two ways, as the two tree diagrams show in (19) and (20), respectively.

(19)



In the first case (19), the wh-object adjoins to the wh-subject in its base position and together they undergo further movement (checking of EPP and Case features) to [Spec, TP] and subsequently to [Spec, CP]. Each phrase receives overt phonological spellout at the position where all of its strong features are deleted after agreement with a matching probe — this is indicated by underlining in the tree diagrams. The wh-object is spelt out in the outer [Spec, vP], after checking its [wh] feature with the wh-subject in the cluster and satisfying the EPP feature of the transitive light verb. The wh-subject is pronounced as late as in [Spec, CP], because this is where it can check off its uninterpretable [wh] feature with the uninterpretable [Q] feature of the C head.



In the second case (20), the wh-object first moves to check its Case and the EPP features of the light verb, then the wh-subject adjoins to it. This accounts for the reversed order of the wh-items. The wh-subject checks off its last strong feature in [Spec, TP], thus it is pronounced there, whereas the wh-object is spelt out later, after entering into a checking relationship with the C head. Observe that both checking of the features of the subject and object shift is required to take place: the resulting structure depends on the fact which requirement is met first.

In English, it is assumed that no cluster formation can take place, as English wh-elements are inherently interrogative and are not composed of a wh-item and an operator, thus they do not attract other wh-items. This means that the only attractor or probe is the C head which looks for the nearest available goal with a matching feature, in accordance with the Minimal Link Condition (21). As the wh-subject is closer than the wh-object, it will always be the former which is attracted to [Spec,CP].

- (21) Minimal Link Condition: K attracts α only if there is no β , β closer to K than α , such that K attracts β .

(Chomsky1995: 311)

3.2 Multiple questions with nonreferential adjuncts

The second argument for the different cluster formation properties of the two languages in question can be derived from the fact that multiple questions containing a *wh*-argument and a nonreferential *wh*-adjunct (*why*, *how*) are possible in German but cannot be formed in English.

In German, as shown in (22), the *wh*-adjunct can attach to the *wh*-argument *wer*, before *wer* undergoes *wh*-movement, and it can get associated with its Q operator. However, in the English example (23), the *wh*-subject does not allow the *wh*-adjunct to move to [Spec, CP]⁵, thus it cannot attach to an element bearing the operator feature, i.e. to C.

- (22) Wer wohnt warum in den ehemaligen Gasbehältern?
who_{nom} lives why in the former gas containers
(Pester Lloyd 16.03.2005)
- (23) *Who lives why in the former gas containers?

The situation is different in structures containing a *wh*-object and a nonreferential *wh*-adjunct; see (24) and (25). The German question is grammatical as above, and there is a way of deriving its English counterpart by moving the adjunct and leaving the object in situ:

- (24) Wen hat Maria warum geküsst?
who_{acc} has Mary why kissed
- (25) a. Why has Mary kissed who?
b. *Who has Mary kissed why?

In German, the *wh*-adjunct adjoined to the *wh*-object and their cluster has moved to the specifier of CP—this way, the *wh*-adjunct could attach to an operator and the structure is well formed, as expected.

As I already discussed, a nonreferential *wh*-adjunct lacks a position for a variable, i.e. an operator feature, thus, it has to attach to one to be interpretable. As *wh*-phrases cannot attach to one another in English, the only place where the *wh*-adjunct can get associated with a Q operator is [Spec, CP]. Thus, in (25a.) the English structure is correct, because the *wh*-adjunct could

⁵ This is true if we assume some form of the Vacuous Movement Hypothesis that states that the *wh*-subject and the C head can check off their features under adjacency (or, alternatively, the features move to C by covert movement), which explains why no overt movement has to take place in subject questions. This way, the adjacent *wh*-subject enters into a checking relationship with the Q feature of C, which bans further movement to [Spec, CP], as the strong Q feature, which would trigger movement, is already deleted.

move to [Spec, CP], as the Q feature of C has not been checked earlier with a wh-subject as in the former example (23).

4 Hungarian multiple wh-structures: a cluster-based approach

4.1 Evidence for assuming the existence of wh-clusters

As Hungarian displays overt multiple wh-movement, it is tempting to say that it is a cluster-forming language at first sight. There are further pieces of evidence that support this idea.

With respect to the morphological properties of wh-items, Hungarian patterns with languages that are capable of cluster formation. In these languages, wh-words can also be used as indefinite pronouns, which points to the fact that they do not inherently possess an operator feature. In Hungarian, we can also find words with an indefinite meaning in certain structures, which are phonologically identical with bare wh-words, as in (26) and (27); for comparison, ‘mit’ is used as a wh-word in (28).

- (26) Van **mit** inni.
‘There is something to drink.’
- (27) Nincs **mit** mondani.
‘There isn’t anything/ There is nothing to say.’
- (28) **Mit** szeret a cica?
‘What does the pussycat like?’

Moreover, this analysis receives further support from the fact that, as observed in Lipták (2002: 293), wh-items can also express universal or existential meanings when combined with certain prefixes (29) (*minden-* and *vala-* respectively) — wh-phrases in wh-clustering languages display this phenomenon quite systematically. The prefixes function as operators, which bind the wh-items. This points to the fact that wh-items ‘lack quantificational force’ (ibid.), thus, have to be bound by an operator.

- | | | | |
|------|-------------|------------------------|--------------------|
| (29) | ki (who) | mindenki (everyone) | valaki (someone) |
| | mi (what) | minden (everything) | valami (something) |
| | hol (where) | mindenhol (everywhere) | valahol(somewhere) |

Another piece of evidence for the existence of wh-clusters is the fact that the sequence of fronted wh-items cannot be interrupted (30).

- (30) *Ki is mikor utazott el?
 *Hova ő mikor utazott el?

4.2 A cluster-based analysis of Hungarian multiple questions

It is a well-established fact (e.g. in É. Kiss 2002) that the landing site of Hungarian wh-movement is not [Spec, CP], but a projection below it, as wh-phrases can be preceded by topics (31) and by the complementizer in embedded clauses (32).

- (31) Péternek **ki** adta oda az ajándékot?
 Peter_{DAT} wh_{NOM} gave pvp⁶ the present_{ACC}
 TOPIC WH-PHRASE
- (32) Azt kérdezte, hogy Mari **kivel** ment tegnap moziba.
 He asked [that Mari_{NOM} who-with went yesterday cinema-to]
 COMPLEMENTIZER TOPIC WH-PHRASE

On the basis of distributional facts and the position of the preverbal prefix, it is assumed that wh-phrases move to the specifier of the Focus Phrase, and no overt movement to [Spec, CP] takes place. Thus, it is plausible to say that the fronting of Hungarian wh-phrases is actually movement of a wh-cluster to [Spec, FocP], where the clause structure of Hungarian is supposed to look like the following (also in Nagy 2003):

- (33) [_{CP} Spec C [_{TopicP} XP_{Top} [+Top]] [_{FocusP} XP_{Foc} [+Foc]] [_{VP} V XP*]]

4.2.1 The featural makeup of Hungarian wh-phrases

It follows from the above that Hungarian wh-phrases have a different feature composition than wh-clustering languages, apart from the fact that they must be DPs headed by an uninterpretable operator feature. As no overt movement to CP occurs in Hungarian, the feature triggering wh-movement must be weak on the C head. In Grewendorf (2001:105), an incomplete typology of the Q-feature is offered, with a note on Hungarian-type languages.

⁶ The abbreviation ‘pvp’ stands for the preverbal prefix in Hungarian.

(34)	<u>Q of C</u>	<u>Q of D</u>
Bulgarian	strong	strong
Japanese	weak	weak
German	strong	weak
(Hungarian	weak	strong)

It is mentioned that Hungarian-type languages, in which we find wh-cluster formation but the cluster lands in a lower position than [Spec, CP], stand for the fourth group in this classification, i.e. the wh-phrases possess strong operator features, whereas the Q of the C head is weak. A closer look will immediately show that the situation must be more complex in Hungarian. If only the wh-items have strong features, then the overt movement of the cluster would stop at the point when it reaches the highest wh-phrase: by this time, all strong features would be checked, so there would be no motivation for further movement. However, the wh-cluster is fronted to a higher position, which seems to indicate that there has to be a strong feature in a higher functional head that triggers this last overt movement step.

As has been stated in the previous section, the wh-cluster moves to the focus position, thus it is plausible to assume that another feature is at work here, namely a focus feature. Parallel to the analysis of wh-items with D-heads, I assume that Hungarian wh-phrases are DPs with a strong selectional Q feature in the D-head, which is uninterpretable and thus attracts other wh-phrases. The other feature involved is the strong uninterpretable focus feature of the Foc head, which attracts the wh-cluster. This leads us to assume that the wh-items also possess a [+focus] feature that can be attracted by the functional Foc head. This idea is supported by other facts in the literature (e.g. Karimi 2000).

After the wh-cluster has moved to [Spec, FocP], covert movement will take place to [Spec, CP], if we assume that the uninterpretable wh-feature of the C head is weak.

4.2.2 The order of fronted wh-phrases in Hungarian

It has been shown that the relatively free order of fronted wh-phrases is not exceptional and not difficult to capture with the help of Wh-Cluster Hypothesis. It is a well-known fact that the order of wh-arguments (and referential adjuncts, see below for details) is free in Hungarian. This can be attributed to the fact that Hungarian exhibits scrambling as base generation (É. Kiss 1995: 237), i.e. arguments are ordered freely in the postverbal domain. Obviously, it follows that depending on the base-generated order, the order of fronted wh-items can show a great variation.

Recall that it has been observed that nonreferential wh-adjuncts differ from other wh-items with respect to their role in cluster formation. As they lack a quantifier, other wh-items cannot attach to them but they must attach to a Q-operator to receive an interrogative interpretation. This accounts for the observation that nonreferential wh-adjunct cannot precede referential wh-phrases in a cluster and that more than one nonreferential wh-phrase cannot appear in a structure.

The above assumptions seem to be supported by the Hungarian data. As shown in (35)-(38), wh-arguments and referential wh-adjuncts can be ordered in various ways, reflecting the free base-generation of these elements. As all of them are argued to possess a D-head, adjunction to one another is not restricted.

- (35) Ki hova utazott?
who where travelled
- (36) Hova ki utazott?
where who travelled
- (37) Ki kivel hova utazott?
who with whom where travelled
- (38) Ki hova kivel utazott?⁷
who where with whom travelled

In Hungarian, a nonreferential adjunct cannot precede an argument or more arguments, that is why the sentences in (40) and (42) are ungrammatical:

- (39) Mit miért vettél?
what why bought-you
- (40) *Miért mit vettél?⁸
why what bought-you
- (41) Ki hogyan rajzolt macskát?
who how has drawn a cat

⁷ These examples demonstrate syntactic ordering alternatives. They are not intended to suggest that the pairs of questions ((35)-(36) and (37)-(38)) with different ordering of the same wh-phrases are identical in meaning. Of course, they are supposed to have distinct LF representations, as reflected in their surface order.

⁸ It has to be mentioned that 'miért' has another meaning, i.e. 'for what'. As this latter reading is referential, nothing would prevent 'miért'₂ to be first in a cluster, as in (i):

- i. Miért mit adott neki?
For what what_{acc} gave him/her
'What did she give him for what?'

In the rest of the paper, as indicated by the glosses, 'miért' will be used in the meaning corresponding to English 'why.'

- (42) *Hogyan ki rajzolt macskát?
how who has drawn a cat

This is as expected: a cluster in which the nonreferential adjunct precedes the argument, could only have been formed by attachment of the argument to the adjunct, but such an operation should be impossible, given that adjuncts lack a D-head.

It also follows from the above that the presence of two nonreferential adjuncts within one wh-question results in ungrammaticality: This prediction is borne out, see (43) and (44).

- (43) *Miért hogyan javítottad meg Béla autóját?
why how repaired-you pvp Bela's car
(44) *Hogyan miért javítottad meg Béla autóját?
how why repaired-you pvp Bela's car

In these cases, as both wh-phrases are adjuncts, neither of them has the operator feature, which would enable cluster formation. Thus, no wh-cluster can be formed out of two nonreferential adjuncts, because neither of them could have attached to the other.

5 Summary

The paper aimed to present possible applications of the Wh-Cluster Hypothesis. Two conclusions have been reached: (i) the hypothesis that certain cross-linguistic differences stem from the non-universal availability of cluster formation is supported by the comparison made between English and German multiple wh-structures; and (ii) a cluster-based analysis seems to make the right predictions about the order of wh-phrases in Hungarian; and resolves the contradiction that there is only a single focus position available, thus multiple focus constructions are disallowed, whereas multiple fronted wh-phrases, which target the same position, are grammatical.

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