On the Syntax of $Wh$-items in Hungarian
Szüleimnek
Acknowledgements

Although Leiden University regulations forbid me to thank exactly those people who struggled most to turn my scattered, weeded ideas and never ending sentences into the present form of a thesis, there are still a couple of other people to whom I feel gratitude for ways they have supported me over the last years.

On the linguistics side, there are two pillars who helped me see things in a generative way.

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Finally, let me express my gratitude to my parents and my grandmother for their love and unfailing support (kőszönöm, kőszönöm, kőszönöm!). My parents’ flexibility has allowed me to be myself and try new things, even if it meant being close and painfully away at the same time. I dedicate this thesis to them, because only they know how much it is really worth.
Introduction

“...az ember mégis számon tartja a túl sok micsodát, átkozódás nélkül, mert ebből tevődik az élethe, s hogy el ne felejtse, kénytelen rendbe rakni, csoportosítani, elválasztani, összekapcsolni, valahogy elrendezni őket. Medve a botrányosan soknál kezdi az átkozódást. Mikor a már úgy-ahogy elrendezett [...] sok micsoda megszorzódik a milyennel. [...] Ezeket a milyen-micsoda szorzataidat tovább sokszorozhatja-hatványozhatja a hogyan? (a hol? mikor?) egyenként és keresztbe-kasul — ha próbálod számon tartani az életed kihaghatatlanul összetartozó dolgainak tömkelegdet”

Ottlik Géza (1912-1990): Buda

“... still, you take stock of the too many what-on-earths, without cursing, because these make up your life, and in order not to forget, you have to put them in order, group them, separate them, connect them, arrange them somehow. Medve only starts cursing when they become scandalously many. When the more-or-less well-arranged [...] what-on-earths multiply with the what-like. [...] These what-on-earth--what-like products may then be further multiplied--squared by the how? (the where? the when?) one-by-one and criss-cross — when you try to keep count of the host of non-negligibly interdependent things of your life”

Wh-items are crucial words in every language. They are constant ingredients of constituent questions — but their role does not end there. In many languages they can evidently do more than that: they can occur in various other clauses with various other meanings.

This dissertation takes Hungarian bare wh-items under scrutiny. It identifies the environments where these items can productively occur, it characterizes their properties and it provides syntactic analyses for the most wide-spread constructions they can be found in. This leads to the main tenet of this study: wh-items are variables in Hungarian. They do not possess an inherent quantificational meaning, rather they obtain their interpretation syntactically from various quantificational elements. Consequently, the configuration they occur in determines what meaning they are construed with, and what properties they have.

The main goal of the dissertation is to rethink the analysis of several constructions with bare wh-items in the light of the above proposal. This will be done in three areas: for single constituent questions, for multiple constituent questions and for a curious construction that has not been analyzed in the generative literature before: the multiple partitive construction. It will be shown that in all three domains wh-items show the properties that are expected if they are treated as variables, which are bound in the syntax. The analyses provided on these pages will be able to explain long standing problems that previous analyses had left unexplained.
What falls outside of the scope of this dissertation is the systematic study of *wh-*items in relative clauses. The examination of relative pronouns is not undertaken due to the fact that these items are not bare *wh-*items (except in some multiple relative clauses, for which see Lipták 2000). In present day Hungarian relative pronouns are morphologically complex: they comprise an *a*'-affix and a *wh-*item base. For the syntactic properties of relative clauses and the position of relative pronouns see Kenesei (1992a, 1994).

1. Outline of the dissertation

In Chapter 1 I discuss those properties of the Hungarian clause structure that are relevant for the understanding of the different phenomena to be discussed in the present study. After a brief note about the theoretical framework used, I present four sections about crucial properties of clause structure in Hungarian. These contain a short introduction to the clause structure in general, making the distinction between neutral and non-neutral clauses, and providing a summary about two important elements in the preverbal domain: exclusive focus and topicalized constituents. The properties of exclusive focus figure predominantly in all chapters of this dissertation, the properties of contrastive topic constituents are relevant for the analysis of multiple partitive constructions in Chapter 4. The discussion of topic types and topicalization constructions clarifies the difference between ordinary Topics, Contrastive Topics and left dislocates, furthering our knowledge of the fine structure of the left periphery in Hungarian and the elements that move there. In section 4 of this introductory chapter I turn to the discussion of sentences which contain semantic disjunction at the level of clauses. These structures become crucial for understanding the properties of multiple partitives in Chapter 4. The last section in this chapter is devoted to *wh-*items themselves, and reviews what can be known about their nature, behaviour and distribution in present day Hungarian and at earlier stages of the language. This section will provide evidence for the claim that *wh-*items are variables.

Chapter 2 is entirely devoted to single constituent questions, like the one in (1):

(1) Kit hívtál meg?
who-ACC invited-2SG PV
‘Who did you invite?’

The goal of the chapter is to spell out the syntax of *wh*-movement in real interrogative clauses in full detail (leaving echo, quiz and reference questions aside). This topic has not been treated in sufficient detail in the generative literature on Hungarian before, presumably due to the fact that *wh*-movement in Hungarian proves completely similar to exclusive focus movement in the overt component. Research therefore has concentrated on focusing, since that is more unique to Hungarian than *wh*-question formation. The overt similarity between focus movement and *wh*-movement lead to the unfortunate situation that — in the absence
of detailed analyses — *wh*-movement has been taken to be identical to focus movement in almost all respects. This view, however, is misguided. Although the similarity between exclusive focus and *wh*-movement is unquestionable as far as overt syntactic positioning is concerned, in the covert component exclusive focusing and *wh*-movement are fundamentally different in ways that cannot be glossed over in syntactic analyses. *Wh*-items and exclusive focus possess different sets of features (*wh*-items have both a <+f> and a <+wh> feature, while focus only the former) and *wh*-items have to establish a relationship with an interrogative complementizer of their clause in the covert component, which is not the case with focus and which I analyze in terms of <+wh> feature checking. The <+wh> feature on *wh*-items can be ascribed to the Q<sub>wh</sub> question operator that binds the *wh*-items at the word level, providing them with a question word meaning. This accounts for the proper semantic licensing, while checking <+wh> against an interrogative C<sup>0</sup> takes care of the formal syntactic licensing of *wh*-items in question clauses.

Chapter 3 turns to multiple questions, which are question clauses that contain more than one *wh*-item. It will be shown that there are three types of multiple questions in Hungarian, for which distinct analyses will be offered. In two types of multiple questions *wh*-items are not uniform: there is always one *wh*-item that is licensed the same way as *wh*-items in single questions are, while the other or others are somehow out of the ordinary. In one type of multiple questions (Type I, illustrated in (2)) the out of the ordinary *wh*-item (italicized) gets the interpretation of a universal quantifier as a result of the configuration it occurs in; in another type of multiple questions (Type II, illustrated in (3)) the unusual *wh*-item is defective in that it is formally licensed in situ, and does not have its <+wh> feature checked against C<sup>0</sup>.

(2) Ki mit vállalt?
    who-NOM what-ACC undertook-3SG
    ‘What did everyone undertake?’

(3) Ki láttott kit?
    who-NOM saw-3SG who-ACC
    ‘Who saw whom?’

A third type of multiple questions (Type III, shown below in (4)) involves conjoined *wh*-items in the position where single *wh*-items also occur; while there is also a type (Type IV, as in (5)) which does not qualify for the name multiple question because it is the conjunction of single question clauses with subsequent deletion of material in the second conjunct.

(4) Ki és mikor látt a Marit?
    who-NOM and when saw-3SG Mari-ACC
    ‘Who saw Mari and when?’

(5) Ki látt a Marit és mikor?
    who-NOM saw-3SG Mari-ACC and when
    ‘Who saw Mari and when?’
Chapter 4 is devoted to a curious construction in which we find wh-phrases in two or more juxtaposed clauses, like in (6):

(6) Ki a boltbamant, ki a piacrament.
    who-NOM the shop-ILL went-3SG who-NOM the market-SUB (went-3SG)

‘Some (people) went to the shop, some (=the others) went to the market.’

While this construction contains one wh-item in each clause, the sentence is not interpreted as a single question. Instead, it is a collection of declarative clauses that characterize sets of individuals introduced into the discourse earlier, such that each clause predicates something about one subset of these individuals. The subsets are referred to by the wh-items. The existence of this construction type has been recorded in the descriptive study on indefinite pronouns by Haspelmath (1997) under the name multiple partitive construction and has been shown to exist in Hungarian, Finnish, Mansi (all Finno-Ugric), Russian, literary French, Hebrew, Georgian and Turkish and Kilivila, an Austronesian language. As I will show, the construction at hand is not uniform in all these languages: we minimally have to distinguish between two subtypes of multiple partitives because they differ in some properties. The most important one out of these is the property that Hungarian-type multiple partitives are exhaustive in their characterization of the discourse set, while French-type multiple partitives are not.

To explain this difference in properties I offer two distinct analyses for the two patterns. The Hungarian pattern I claim involves disjoined clauses in which the wh-items are fronted to initial Contrastive Topic positions and get bound by an unselective universal operator from outside. Disjunction scoping under the universal operator results in the wh-items having a meaning similar to ordinary indefinites.

The French pattern is analyzed in terms of partitivity: the wh-items function as strong partitive pronouns and are licensed as such by the multiplicity of clauses they occur in.

2. Notation

Since this dissertation is about wh-items, this term is used with great frequency. As a rule of thumb, the term “wh-items” without further specification is used to denote occurrences of bare wh-items, not making reference to a specific meaning or use. For reasons of simplicity, however, the term “wh-items” is applied to interrogative wh-words in Chapter 2 and Chapter 3, unless otherwise specified or made clear by the context.
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## Abbreviations

**CASES** in Hungarian (abbreviated by first three letters)

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<th>Abbreviation</th>
<th>Name</th>
<th>Marker</th>
<th>English equivalent</th>
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<tr>
<td>NOM</td>
<td>nominative</td>
<td>Ø</td>
<td>(subject)</td>
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<td>ACC</td>
<td>accusative</td>
<td>-t</td>
<td>(object)</td>
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<tr>
<td>DAT</td>
<td>dative</td>
<td>-nak/-nek</td>
<td>to, for</td>
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<td>INS</td>
<td>instrumental</td>
<td>-val/-vel</td>
<td>with</td>
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<td>INE</td>
<td>inessive</td>
<td>-ban/-ben</td>
<td>in</td>
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<td>ILL</td>
<td>illative</td>
<td>-ba/-be</td>
<td>into</td>
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<td>ELA</td>
<td>elative</td>
<td>-ból/-ből</td>
<td>out of</td>
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<td>SUP</td>
<td>superessive</td>
<td>-on/-en/-ön</td>
<td>on</td>
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<td>sublative</td>
<td>-ra/-re</td>
<td>onto</td>
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<td>delative</td>
<td>-ról/-ről</td>
<td>off, about</td>
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<td>adessive</td>
<td>-nál/-nél</td>
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<td>-hoz/-hez/-höz</td>
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<td>ablative</td>
<td>-tól/-től</td>
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<td>translative</td>
<td>-vá/-vé</td>
<td>(change) into</td>
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<td>ESS</td>
<td>essive</td>
<td>-ul/-ül</td>
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<td>FOR</td>
<td>formalis</td>
<td>-ként, -képpen</td>
<td>as</td>
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<td>causalis</td>
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<td>TER</td>
<td>terminative</td>
<td>-ig</td>
<td>up to, until</td>
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### Other abbreviations

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<td>APPL</td>
<td>applicative</td>
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<td>aspectualizer</td>
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Preliminary explorations

1. Theoretical framework

In this dissertation I use the framework of the Minimalist Program (Chomsky 1995: Chapter 4). This views movement as an operation that satisfies the requirement of formal feature checking, triggered by the need to check features on functional heads. Since movement serves feature checking, the minimal operation (always preferred due to Last Resort) raises only the feature in case there are no phonological requirements for the whole category to raise. This leads to the differentiation between two types of movement: overt category movement and covert feature-movement. The latter will become relevant in Chapter 2 and 3 in the analysis of single and multiple questions. In the rest of the dissertation, feature checking does not play an important role, and most of what is said could be recast into the Government and Binding model as well with minor modifications.

2. Hungarian clause structure

Hungarian clauses can be neutral or non-neutral (Kálmán 1985a, Kálmán 1985b, Kenesei 1986, Horváth 1986, Varga 1986, Olsvay 2000), most conveniently recognizable from their intonation. Neutral clauses contain equal stress on all the notional words, and have level prosody throughout. Syntactically, these sentences contain no exclusive focus (Kálmán et al 1986, É. Kiss 1988) (for the definition of exclusive focus, see 3.1 below). Non-neutral clauses are clauses where the pattern of equal stresses on notional words and level prosody cannot be found. These sentences contain an exclusively focused constituent, which, according to Kenesei and Vogel (1989, 1996) and Kálmán and Kornai (1989), is the last constituent with unreduced stress, followed by a completely destressed verb and postverbal constituents with reduced stresses. The prefocus constituents have unreduced stresses. The difference between neutral and non-neutral sentences is structural: in non-neutral clauses we minimally find the A-bar positions of exclusive focus and possible other prefocus constituents; neutral clauses lack such an A-bar functional domain.

The order of constituents in a neutral clause is SVO in Hungarian (Kálmán 1985a), which argues for a configurational view on the Hungarian VP, supported by other subject-object asymmetries (Kenesei 1986, Marác 1989 contra É. Kiss 1987). The functional structure of the inflectional layer above VP is the following:

(1) [AspP [AgroP [MoodP [TP [ModalP [AspP [VP ]]]]]]]

The aspectual property of sentences is coded in AspP, which is assumed to host verbal modifiers (prefixes, bare nominals) determining the aspectual properties of
the clause (É. Kiss 1998c). The functional hierarchy between AgrsP and ModalP is argued for in detail in Bartos (2000). ModalP hosts affixes that signal modality (epistemic, deontic, etc.); MoodP is the projection that checks mood (indicative/imperative–subjunctive/conditional). The presence of AgrsP and AgroP is supported by the morphological determination of verbs. Verbal forms contain information both about the subject and object of the verb in Hungarian: verbal conjugation codes person and number of the subject and definiteness of the object. This is shown for the verb lát ‘see’ in (2) in the present tense:

(2) | indefinite object | definite object |
---|------------------|----------------|
1SG subject | lát-ok | lát-om |
2SG subject | lát-sz | lát-od |
3SG subject | lát | lát-ja |
1PL subject | lát-unk | lát-juk |
2PL subject | lát-tok | lát-játok |
3PL subject | lát-nak | lát-ják |

Arguments for claiming that objects land in Spec,AgroP, an A-position, for checking of case and definiteness features can be found in Brody (1995) and Lipták (1996).

The order of projections in (1) is determined by Bartos (2000) with the help of the mirror principle on the basis of the order of verbal affixation. Affixes attaching closer to the verbal stem correspond to phrases that are projected first. Consider the verb form lát-hat-t-ad volna see-POT-PAST-2SG.DEF COND ‘you could have seen it’. The affixes on the verb from left to right correspond to the projections of the A-architecture from right to left (note that the conditional affix has to be spelled out as an independent word):

(1') [AgrsP/AgroP -ad [MoodP (volna) [TP -t [ModalP -hat [VP lát ]]]]]

The functional categories indicated in (1) are not scopal projections in the sense that their specifiers are not positions from where constituents take scope (Szabolcsi 1997). Scopal positions in Hungarian can be found in the so-called focus/quantifier field, to which I turn to in the next section.

3. Non-neutral clause structure (quantificational architecture)

In non-neutral clauses, the following set of functional projections can be built on top of the functional projections given in (1):

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1Definiteness of the object by and large corresponds to the semantic notion of definiteness, exceptions to this are first and second person pronouns engem ‘I-ACC’ and séged ‘you-ACC’ and quantificational phrases with minden ‘every’ — these, although semantically definite, use the indefinite paradigm. For more on this, see Bartos (2000) and Den Dikken (2000). Note also that I do not indicate the definiteness/indefiniteness conjugation on verbs in the glosses throughout this dissertation, unless it is relevant for the discussion.
The structure in (3) is a result of research in the past twenty years contributed to most notably by Horvath (1986), Kenesei (1986), É. Kiss (1987, 1992a), Brody (1990a,b, 1995) Puskás (1996) and Szabolcsi (1997). The so-called focus or quantificational field, which is shown in (3), provides positions for constituents with certain logical and discourse properties. Hungarian is a discourse-configurational language (É. Kiss 1995). This means that word order is determined by the logical and discourse function of the constituents. Constituents with certain logical and discourse functions necessarily have to move to the positions indicated in (3). Starting from the complementizer projection, these positions are the following.

The iterable TopP (=RefP in Szabolcsi 1997) hosts topic phrases, which serve as logical subjects of predication and can only be referential or generic phrases. Topics in non-neutral sentences can always be followed by sentential adverbials like tegnap ‘yesterday’, which also occupy topic positions according to É. Kiss (1987). For more on the properties of topics, see 3.2 below.

Spec,DistP (=QP in É. Kiss 1992a) is filled by quantificational items of the

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2 Quantificational items can appear in the postverbal field as well. Postverbal constituents following the verb in non-neutral sentences were given some attention in the recent years most notably by Szabolcsi (1997) and É. Kiss (1998d). What seems clear from these investigations are the following important points:
(i) constituents in the postverbal field scope under those in the preverbal field
(ii) the scope of postverbal quantifiers is not determined by S-structure, unlike that of preverbal ones

The second observation follows from data with inverse scope readings between postverbal quantifiers (Szabolcsi 1997): these readings indicate that these sentences involve LF-movement of postverbal phrases to scope positions as well. This must mean that Hungarian has scope positions both in the preverbal and in the postverbal field, but while the former is transparent at S-structure, the latter is not.
following sort: minden fiú ‘every boy’, valamennyi fiú ‘each boy’; also and even phrases like Péter is ‘Péter, too’; legalább hat fiú ‘at least six boys’ and több mint hat fiú ‘more than six boys’. The reason why this quantificational slot is best termed as Distributive Phrase is that all these items are construed with a distributive meaning in DistP:

(4) Legalább hat fiú felemelte a zongorát.
    at least six boy-NOM lifted-3SG the piano-ACC
    ‘At least six boys lifted the piano (each on his own).’
    ‘*At least six boys lifted the piano together.’

Spec,FocP hosts an exclusive focus constituent (Brody 1990a,b, 1995), one per clause (but see É. Kiss 1998d for possible arguments to the effect that FocP is also iterable). These constituents have special interpretation: they are identified as the sole constituent of which the given predicate holds, by excluding any other constituents at the same time. We will come back this type of focusing, together with non-exclusive focus in section 3.1 below.

Syntactically, exclusive focus is always recognizable by the position of the verbal head. When FocP is projected to host an exclusive focus constituent (or in the case of verb focus) the verbal head is always found right adjacent to the focused constituent. This is noticeable if the verb has a verbal modifier, which in neutral sentences precedes the verb, and in sentences with focus follows that:

(5) a. Péter felemelte a zongorát. [neutral sentence]
    Péter-NOM PV-lifted-3SG the piano-ACC
    ‘Péter lifted the piano.’

b. PÉTER emelte fel a zongorát. [sentence with focus]
    Péter-NOM lifted-3SG PV the piano-ACC
    ‘It was Péter who lifted the piano.’

The different position of the verb corresponds to a structural difference between (5a) and (5b): (5b) contains the verbal head in the Foc⁰ position and the preverb stays in its base generated position, in Spec,AspP. That is, focusing is always accompanied by verb movement:

(5) b’. [FocP Péter] [Foc’ emelte] [AspP fel tₐ [vp tₐ tᵢ a zongorát]]
    Péter-NOM lifted-3SG PV the piano-ACC
    ‘It was Péter who lifted the piano.’

Sentential negation in Hungarian is base generated in a projection of its own and adjoins to the verb that moves to Foc⁰ thereby invoking the structure in (5b’) as well, according to Puskás (1996):
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(6) [[TopP Péter] [FocP [Foc' nem emelte,] [NegP t,] [AppP fel t,] [VP t, t, a zongorát ]]]]
Péter-NOM not lifted-3SG PV the piano-ACC

‘Péter did not lift the piano.’

After seeing what constituents occur in the preverbal field, we can turn to the scopal relations these constituents can have with respect to each other. It is well-known that Hungarian wears “its LF on its sleeve”: surface order of constituents disambiguates scopal relations. Consider for example the interpretation we get with two quantifier phrases sitting in DistPs:

(7) a. [[DistP sok member] [DistP mindenkit felhivott].] (sok ember > mindenkit)
   many man-NOM everyone-ACC PV-called-3SG
   ‘Many people phoned everyone.’

b. [[DistP mindenkit] [DistP sok ember felhivott.]] (mindenkit > sok ember)
   everyone-ACC many man-NOM PV-called-3SG
   ‘Everyone was phoned by many people.’

Quantifiers, however, are not free to occur in any order — their semantic properties determine in which preverbal position they can or must occur; and their occurrence in these specific positions fixes their scope in the preverbal field. For example, a distributive every phrase cannot land in any other position in the focus field than Spec,DistP. Since DistP has a fixed position in the hierarchical order of functional projections, an exclusive focus constituent cannot have scope over a distributive quantifier due to the fact that FocP, which hosts the former, is dominated by DistP, which hosts the latter:

(8) Mindenkit PÉTER hivott fel. (mindenkit > Péter)
   everyone-ACC Péter-NOM called-3SG PV
   ‘Everyone was called by PÉTER (and not someone else).’
   *PÉTER (and not someone else) called everyone.’

3.1. Focus types

In all languages focus, regardless of its subtype, is recognizable by its phonological properties. Every type of focused constituent carries pitch accent (heavy stress). The term focus, however, covers different phenomena that have to be separated.

Following Halliday (1967) and Rochemont (1986), two main types of focus have to be recognized because they are truth-conditionally not equivalent, and they do not always correspond to the same structural position in the syntax. On the wide interpretation focus is non-exclusive, i.e. it does not exclusively identify individuals. On the narrow interpretation, it does exclusively identify individuals of which a given predicate holds. A good overview of the two types can be found in É. Kiss

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3That surface order determines scope is summarized by the following requirement (É. Kiss 1994): In Hungarian, operators c-command their scope at S-structure (where c-command is defined in terms of first branching node).
3.1.1. Exclusive focus

Exclusive focusing is an operation that identifies all the individuals of whom a given predicate holds, by excluding all other individuals at the same time. Exclusive focus is also called contrastive because it always operates on a contextually given focus domain (set of individuals in a given context, or focus variants) and splits the focus domain into two subsets: one of which the predicate holds, and one of which it does not. Hence the name contrastive (it creates contrast between the two subsets). As most recent analyses (Kenesei 1986, Szabolcsi 1994b) argue, focus identifies by the exclusion of a set of which the given predicate does not hold (contrast set).

The meaning of exclusive focus can always be given with the help of an IDENTIFY operator or following Chomsky (1976) and Kenesei (1986), with an iota-operator:

(9) a. PÉTERT hívtam meg.
Péter-ACC invited-1SG PV
‘It was Péter whom I invited.’

b. IDENTIFY (λx.I invited x, Péter)

c. (I invited(x)) = Péter

(9) identifies all and only the individuals whom I invited.

Exclusive focus has different syntactic appearances from language to language. As (9a) shows, Hungarian exclusive focus is ex situ. The focused constituent moves

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4. A note is in order here about the terminology of focus types. Contrastive the way it is used in Kenesei (1986) and Szabolcsi (1994b), is equivalent to exclusive in my terminology. The reason why I opt for using exclusive instead of contrastive focus is due to the fact that the name contrastive is used in a different and potentially misleading sense in É. Kiss (1998b), where contrastive focus is identified as a subtype of what I call exclusive focus.

É. Kiss’ arguments for this move are the following. She shows on the basis of various languages that what she calls the feature content of exclusive focus phrases can differ from language to language. There are languages where exclusive focus is only fine if the sentence contains an explicit mention of alternatives by spelling these out overtly. Arabic, for example is such a language (Ouhalla 1994):

(i) a. *SHAAY-AN sharih-a Zayd-un.
tea-ACC drink-3SG Zayd-NOM

b. SHAAY-AN sharih-a Zayd-un (laa ‘asir-an).
tea-ACC drink-3SG Zayd-NOM (not juice-ACC)

‘Zayd drinks TEA (not juice).’

If the set of alternatives is not spelled out (ia), a preverbal focus is ungrammatical, and only a postverbal information focus can be used. Preverbal focus can only be used if the set of alternatives is present. Therefore É. Kiss argues that exclusive focus in Arabic is necessarily [+contrastive], as opposed to languages where there is no such restriction (like Hungarian), where it is [−contrastive]. I think the [+/-contrastive] distinction is not the right one to make on the basis of (i). If the semantics of exclusive focus indeed involves identification by exclusion, creating a complement set (i.e. showing contrast) is an inherent property of exclusive focus, not subject to variation. Whether languages have to spell out the complement set in overt syntax is an independent question.

Note also that exclusive focus is called identificational focus in É. Kiss (1998b). I do not adopt this term because identification is also part of non-exclusive focus in the intuitive sense.

5. I take the IDENTIFY operator to be an illocutionary one, just as ASSERT below with respect to example (15).
to a preverbal position. English exclusive focus usually involves clefting: cleft sentences are always interpreted with exhaustive identification of the subset the predicate holds of.6

(10) It was Péter whom I invited.

In situ focus is ambiguous in English: it can be interpreted as exclusive focus (contra É. Kiss 1998b), or as non-exclusive:

(11) I invited PÉTER.

(11) can be true under the same truth conditions as (9) above: when Péter is the only individual in a contextually given set whom I invited. It is important that Péter in (11) bears heavy stress: this is the only indication in this English sentence that this constituent must be interpreted as focus.

Hungarian in situ focus, as opposed to English, cannot be interpreted as exclusive. (12) cannot mean that Péter was the only one I invited. We will return to the interpretation of this sentence in the next section.

(12) Meghívtam PÉTERT.
    PV-invited-1SG Péter-ACC
    ‘I invited Péter.’
    ‘*It was Péter whom I invited.’

Whether an instance of focus is exclusive or not can be tested by checking entailment relations of the following sort (Szabolcsi 1981): in a pair of sentences, where in the first sentence we focus a coordinate structure, and in the second only one conjunct of it, if the second sentence is not the logical consequence of the first one, we are dealing with exclusive focus. Consider the following pair:

(13) a. PÉTERT és MARIT hívtam meg.
   Péter-ACC and Mari-ACC invited-1SG PV
   ‘It was Péter and Mari whom I invited.’

b. PÉTERT hívtam meg.
   Péter-ACC invited-1SG PV
   ‘It was Péter whom I invited.’

(13a) and (13b) are not true in the same situations: (13a) is true only if the invited people were Péter and Mari; (13b) only if the invited person was Péter exclusively, in a situation in which Mari was not invited. (13b) therefore is not a consequence of

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6This is the reason why faithful translation of Hungarian exclusive focus into English is done with clefting. As Rooth (1992) points out, only clefting is interpreted exclusively among all circumstances. However, due to the fact that clefting creates necessary wide scope for the contrasted constituent, while Hungarian exclusive focus does not, in cases where the exclusive/non-exclusive difference does not play a role or is evident, I am using in situ focus with capitals in the English translation of Hungarian sentences in this dissertation.
(13a), which shows that we are dealing with exclusive focus here.

3.1.2. Non-exclusive focus

Non-exclusive focus is a term used to cover various focus types which are all similar in that they do not identify individuals exhaustively, unlike in (9) above. These non-exclusive foci comprise the following focus types: information focus, presentational focus, rheme.

Information focus is the name given to focus found in answers to questions, as in the English (14a) or Hungarian (14b) (Roberts 1998):

(14) a. Q What did Péter do?
   A He bought a CAR.

   b. Q Mit csinált Péter?
      what-ACC did-3SG Péter-NOM
      ‘What did Péter do?’
   A Vett egy kocsit.
      bought-3SG a car-ACC
      ‘He bought a car.’

The answers in (14a,b) are not taken to exclude that Péter did anything else but buy a car, so the VPs in these sentences are instances of non-exclusive focus.

Presentational focus corresponds to a segment in the sentence that carries new information (rheme) (Rochemont 1986), going back the Prague school in tradition (Hajidová 1984). The introduction of new (non-presupposed) information, just like a non-exclusive answer to a question can be done by in situ focus in English (15a), and according to É. Kiss (1998b) in Hungarian as well (15b):

(15) a. I invited PÉTER.

   b. Meghívtem PÉTERT.
      PV-invited-1SG Péter-ACC
      ‘I invited PÉTER.’

(15) merely asserts that Péter was invited, without implying anything about other people who were or were not invited. The logical formulation of (15) is that of assertion:

(15’) ASSERT(λx.I invited x, Péter)

With respect to (15b), it has to be noted that it is not the most natural way of rendering (15a). Although postverbal positions are available for non-exclusive focus

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7Although the name presentational focus is sometimes used in a very strict sense for sentences which indicate an event where something comes into being/sight. This kind of strict presentational focus contains verb fronting in Hungarian, as the following example demonstrates (Kenesei, Vago and Fenyesi 1998):

(i) Felkelt a nap.
   PV-rose-3SG the sun-NOM
   ‘The sun has risen.’
constituents, examples of this kind of focus are best if the preverbal focus position is filled with some operator, like in the case of imperative sentences, where the verb raises to Foc° (Kenesei, Vago and Fenyvesi 1998):

(15)  c. Hív d meg PÉTER!
       invite-IMP-2SG PV Péter-ACC
‘Invite PÉTER!’

That the postverbal focused constituent in (15c) is a non-exclusive one can be shown with the exclusive focus test I have introduced above:

(16)  a. Hív d meg PÉTER és MARIT!
       invite-IMP-2SG PV Péter-ACC and Mari-ACC
‘Invite PÉTER and MARI!’
 b. Hív d meg PÉTER!
       invite-IMP-2SG PV Péter-ACC
‘Invite PÉTER!’

(16a) has, as its logical consequence that (16b) is also true in any given situation where (16a) is true. Inviting Péter and Mari (among possible others) entails inviting Péter logically. This proves that the postverbal constituents in (16) are not an instance of exclusive focus.

In this section I have characterized two types of focus: exclusive and non-exclusive focus. I have pointed out that they differ in their semantics. Exclusive focus identifies the set of individuals of which a predicate holds exhaustively: by contrasting this set with a set of which the predicate does not hold.

Syntactically, languages can treat the two types of focus differently. Hungarian is a language that syntactically differentiates between exclusive and non-exclusive foci. Exclusive focus is ex situ, non-exclusive focus is in situ. This is not surprising given that exclusive focus is quantificational. Hungarian tends to assign quantifiers their LF scope already in overt syntax by moving them to preverbal positions. In English, there is an overlap between the syntactic realization of the focus types: while clefting can only be exclusive, in situ focus can be either exclusive or non-exclusive focus.

3.2. Topic types

Topics (named theme or background as well) are items that serve as “anchors” of old information, being the notional subject of predication. This property is characteristic of every type of topic one can find in a clause.

In this section I will characterize topics in Hungarian. As I will show there are two types of topics to distinguish: non-contrastive, ordinary topics (named Topics further on), and contrastive topical elements, comprising left dislocates (LD) and Contrastive Topics (CT for short). The latter two can be differentiated on the basis of phonological behaviour and their patterning with different coordinators. While
there are differences between these three types of topics, they all can be called "topic" because they serve as the notional subject of predication and they are positionally similar: they are the leftmost constituents in a clause usually.

3.2.1. Non-contrastive topics: Topics
In the Hungarian generative literature topicalization refers to the placement of phrases in the leftmost positions in the clause, where elements can only be preceded by other topics or the complementizer. Topics can be characterized and defined by the following properties (É. Kiss 1992b), illustrated with an example when possible:

- Topics have an even middle pitch intonation without a pause following them
- there can be more than one Topic per clause

(17) Anna Péternek KÖNYVET adott.  
Anna-NOM Péter-DAT book-ACC gave-3SG  
'To Péter, Anna gave a BOOK.'

- Topics can be followed or preceded by sentential adverbials (like temporals, which are also treated as topic phrases themselves)

(18) a. Anna Péternek tegnap KÖNYVET adott.  
Anna-NOM Péter-DAT yesterday book-ACC gave-3SG  
b. Anna tegnap Péternek KÖNYVET adott.  
Anna-NOM yesterday Péter-DAT book-ACC gave-3SG  
c. Tegnap Anna Péternek KÖNYVET adott.  
yesterday Anna-NOM Péter-DAT book-ACC gave-3SG  
'To Péter, Anna yesterday gave a BOOK.'

- Topics cannot be preceded by quantifiers

(19) *Anna minden születésnapjára Péternek KÖNYVET adott.  
Anna-NOM every birthday-POSS.3SG-SUB Péter-DAT book-ACC gave-3SG  
'To Péter, Anna gave a BOOK for every birthday of his.'

- Topics must be referential expressions (definites, specific indefinites, generics)

(20) a. *Egy ismeretlen ember felhívott.  
an unknown person-NOM PV-called-3SG  
'An unknown person called.'  
(E. Kiss 1992b, ex. 39)  
b. Felhívott egy ismeretlen ember.  
PV-called-3SG an unknown person-NOM  
'idem'

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8 Note that throughout this dissertation for reasons of simplicity I refrain from paraphrasing topics in English with "as for..." phrases. I keep this paraphrase for contrastive topics (section 3.2.2 below).
• universal quantifiers cannot be Topics

(21) *Mindenki tegnap KÖNYVET adott Péternek.
   everyone-NOM yesterday book-ACC gave-3SG Péter-DAT
   ‘Everyone gave a BOOK to Péter yesterday.’

• Topics need not be followed by operators

(22) Anna Péternek tegnap adott egy könyvet.
   Anna-NOM Péter-DAT yesterday gave-3SG a book-ACC
   ‘To Péter, Anna yesterday gave a book.’

• Topicalization does not assign scope to the topicalized element (unlike operator-movement in Hungarian); since Topics are specific items, they always have widest existential scope in their clause

The role of Topics according to É. Kiss (1987, 1992b, 1994) is that of being the notional subject of predication: therefore Topics must be entities that carry an existential presupposition. Positionally, Topics are found in the specifiers of distinct Topic projections, which are iterable (cf. 3). Thus, (17) for example has the following structure:

(17') [TopPAnna [TopP Péternek [FP KÖNYVET adott]]].
Anna-NOM Péter-DAT book-ACC gave-3SG
‘To Péter, Anna gave a BOOK.’

Topicalization is considered to be an instance of NP-movement (A-movement) in É. Kiss (1992b). This is suggested by the fact that topicalization does not create or change scope. Some islands let topics through without subjacency effects. If we compare a well-established A-bar movement, wh-movement with topicalization, we see that only the former is subject to Subjacency across purpose clause islands and relative clauses with copular sentences:

(23) a. *Mit guggoltál le [hogy bekössél t-j]?
   what-ACC crouched-2SG PV that PV-tie-SUBJ-2SG
   ‘What did you crouch down to tie?’
b. A cipőmet leguggoltam [hogy bekössém t-i].
   the shoe-POSS.1SG-ACC PV-crouched-1SG that PV-tie-SUBJ-1SG
   ‘My shoes, I crouched down to tie.’

(24) a. *Mit van [ aki még nem ismer t-i ]?
   what-ACC be-3SG a-who-NOM yet not know-3SG
   ‘What is such that there are people who do not know it yet?’
b. Ezt az elméletet, van [ aki még nem ismeri t-i ].
   this the theory-ACC be-3SG a-who-NOM yet not know-3SG
   ‘This theory there are people who do not know yet.’
3.2.2. Contrastive topics: left dislocates and Contrastive Topics

3.2.2.1. Left dislocates
Since Szabolcsi (1980, 1981) and Hunyadi (1981) it is known that the above illustrated Topics are not the only elements that can be found in positions preceding quantifiers and focus in Hungarian. Beside the above illustrated Topics, we can find constituents in sentence initial positions that are pronounced with a characteristic rising pitch, secondary stress and followed by a slight pause. This kind of characteristic intonation on the element with rising tone, secondary stress followed by a pause will be marked by √ in the following examples.

The elements with this kind of characteristic intonation always express contrast, unlike regular Topics, in a way that is indicated in the translation below:

(25) √János AJÁNDÉKOT kapott.
     János-NOM present-ACC got-3SG
     'As for János, he got a PRESENT (while someone else might have got something else than a present).'

Therefore Szabolcsi (1980,1981) refers to the elements with rising tone as contrastive topics.

It was also noticed that these elements with rising intonation can be followed by a pronominal element with which they are coreferential, with the same meaning as above:

(25') √János, ō/az AJÁNDÉKOT kapott.
      János-NOM he/that-NOM present-ACC got-3SG
      'idem'

A detailed analysis of this resumptive pronominal construction can be found in De Groot (1981), where the construction is termed contrastive left dislocation.

É. Kiss (1987) points out that these two constructions, the so-called contrastive topics (25) and the so-called contrastive left dislocates (25') are in fact the same. In the latter there is an overt pronominal following the item with rising intonation; in the former, there is a covert pronoun. Therefore she handles these under one umbrella and refers to them as left dislocation. Beside the identical intonation, she notes, these constructions have the same syntactic behaviour as well: both can be embedded in a that-clause, but cannot be embedded in a relative clause without degradation:

(26) a. Azt mondják, hogy √János, (ō/az) AJÁNDÉKOT kapott.
       that say-3PL that János-NOM, (he/that-NOM) present-ACC got-3SG
       'They say that as for János, he got a PRESENT.'

b. ??a lánytól, akitől √János, (ō/az) AJÁNDÉKOT kapott
       that girl-ABL a-who-ABL János-NOM (he/that-NOM) present-ACC got-3SG
       'the girl, from whom, as for János, he got a PRESENT'

Later developments in the study of topicalization (Molnár 1998) have revealed
more about the nature of left dislocation and contrastive topics in general. Most importantly, it was pointed out that left dislocates are not dislocated in the syntactic sense of the word. In fact, the name “left dislocation” is a misnomer. Originally the term was invented to indicate that these items are generated outside the clause they appear with (Cinque 1983, É. Kiss 1987 for Hungarian). This explains why although they linearly precede at least one operator in their clause, they take scope under it:

(27)  √Mindennki  PALIT szereti.  (focus>∀)
     everyone-NOM  Pali-ACC  love-3SG
     ‘It is Pali whom everyone loves.’

If the projection of the left dislocate dominated the focus in (27), this would contradict the claim that in Hungarian operators c-command their scope at S-structure (É. Kiss 1987). Therefore it is suggested that left dislocation is not part of clause structure, thus the left dislocate does not take scope over elements in the clause. The resumptive pronoun Ő/az is not taken to be part of the clause either, rather, it appositively modifies the left dislocate with which it forms a unit. (The other way of thinking about this pronoun is to take it to be a clitic-like element (Cinque 1983), which criticizes to the left dislocate. This explains why there cannot be anything in between the two.)

Molnár (1998) criticizes É. Kiss’ analysis and points out that since left dislocates can be preceded by Topics, which are evidently part of clause structure, left dislocation must also be (LDP marks the projection where left dislocates sit for short):

(28)  [TopP Tegnap  [LDP √Péter  [FocP ÂJÁNDÉKOT  kapott  Maritól]].
     yesterday  Péter-NOM  present-ACC  got-3SG  Mari-ABL
     ‘As for Péter, yesterday he got A PRESENT from Mari.’

This position is also endorsed by Gécseg (to appear) as well, who points out that while Topics are neutral preceding left dislocates, they are not natural following them:

(29)  ??[LDP √Péter  [TopP tegnap  [FocP ÂJÁNDÉKOT  kapott  Maritól]].
     Péter-NOM  yesterday  present-ACC  got-3SG  Mari-ABL
     ‘idem’

This suggests that the position of left dislocates is the last among topic positions in the Hungarian clause structure. It is not iterable and it fits into the Hungarian clause structure the following way:

(30)  [CP [TopP∗  [LDP  [DistP∗  [FocP  [NegP ([AgrP∗  ... )]])]]]] (cf. (3))

The study of left dislocation therefore resulted in establishing that left dislocates are positioned in the preverbal field of Hungarian, they are not dislocated in any sense. I will nevertheless keep the name left dislocates for these items.
3.2.2.2. Contrastive Topics
As far as the contrastive nature of topicalization is concerned, it was noticed that not all contrastively interpreted topical elements are pronounced with the above described characteristic intonation of left dislocation (Kenesei, Vago and Fenyvesi (1998)). The following example contains no rising intonation on any item, yet contrastive interpretation is present:

(31) Anna könyvet nem olvas, de novellát igen.
Anna-NOM book-ACC not read-3SG but short story-ACC yes
‘As for books, Anna does not read them, but as for short stories, she reads those.’

In this example, könyvet ‘book-ACC’ contrasts with novellát ‘short story-ACC’ in that Anna reads the latter and not the former. Contrast is pairwise in these cases: books (i.e. novels) contrast with short stories, and the predicate ‘not read’ contrasts with ‘read’. If the second clause is spelled out, the topical elements form one pair and the predicates another pair. We can notate it via coindexing the contrasting elements:

(32) Anna [topic könyvet],i [pred nem olvas],j de [topic novellát],i [pred igen],j
Anna-NOM book-ACC not read-3SG but short story-ACC yes
As far as the structure of (32) is concerned, the predicates are FocP structures. Könyvet and novellát precede these FocP phrases. There is no special intonation these elements bare — they are intonated as ordinary Topic elements. However, unlike those, they are contrastively interpreted, as we have seen above. I will call these constituents Contrastive Topics to differentiate them both from left dislocates (which are also contrastive but with a special intonation) and from ordinary Topics (which are not contrastive). While both left dislocates and Contrastive Topics are contrastive topics in the descriptive sense of the term, Contrastive Topics and left dislocates make up two separate subclasses.

In the next section I will examine structural characteristics of left dislocates and Contrastive Topic elements.

3.2.2.3. Syntactic characteristics of left dislocates and Contrastive Topics
As we have seen in the previous section, both left dislocates and Contrastive Topics can be found in the left periphery of the Hungarian clause structure. In order to give a detailed structural characterization of the two elements, it is useful to look at other elements in the clause they occur in: contrastive coordinators. The position of these can help to locate left dislocates and Contrastive Topics.

When a clause is in contrast to another clause we usually find contrastive coordinators signalling this. It is also possible that no contrastive coordinator is present, to this option I will come back later in this section.

Contrastive coordinators appear before or inside the second (or, if there are more than two clauses, final) clause, and come in two sorts in Hungarian. Clause initial ones precede the second (or final) clause; clause internal ones always appear inside
the second (final) clause following the contrastive topic element. The two types cannot appear together in one clause. The two sorts of coordinators are the following:

(i) clause initial coordinators: de, ám, mig, viszont, azonban
(ii) clause internal coordinators: viszont, azonban, pedig, meg

For illustration, see the examples below. (33) illustrates clause initial coordinators, (34) clause internal ones. (35) shows that some coordinators can appear together in one clause.

(33) a. Anna könyvet olvas, de/ám/mig/viszont/azonban novellát nem.
   Anna-NOM book-ACC read-3SG COORD short story-ACC not
   ‘As for books, Anna reads them, but as for short stories, she does not read those.’

b. Anna könyvet nem olvas, de/ám/mig/viszont/azonban novellát igen.
   Anna-NOM book-ACC not read-3SG, COORD short story-ACC yes
   ‘As for books, Anna does not read them, but as for short stories, she reads those.’

c. Mari PALIT szereti, de/ám/mig/viszont/azonban Bea PÉTERT.
   Mari-NOM Pali-ACC love-3SG COORD Bea-NOM Péter-ACC
   ‘Mari, she loves PALI, whereas Bea, she loves PÉTER.’

(34) a. Anna könyvet olvas,
   Anna-NOM book-ACC read-3SG
   short story-ACC COORD
   ‘As for books, Anna reads them, but as for short stories, she does not read those.’

b. Anna könyvet nem olvas,
   Anna-NOM book-ACC not read-3SG
   short story-ACC COORD yes
   ‘As for books, Anna does not read them, but as for short stories, she reads those.’

c. Mari PALIT szereti,
   Mari-NOM Pali-ACC love-3SG
   Bea viszont/azonban/pedig/meg/ de/ám/mig nem.
   Bea-NOM COORD Péter-ACC
   ‘Mari, she loves PALI, whereas Bea, she loves PÉTER.’

(35) a. Anna könyvet olvas,
   Anna-NOM book-ACC read-3SG
   de/ám/mig novellát ??viszont/azonban/ pedig/ meg nem.
   COORD short story-ACC COORD
   ‘As for books, Anna reads them, but as for short stories, she does not read those.’

b. *Anna könyvet nem olvas, azonban novellát viszont igen.
   Anna-NOM book-ACC not read-3SG COORD short story-ACC COORD yes
   ‘As for books, Anna does not read them, but as for short stories, she reads those.’
c. *Anna könyvet nem olvas, viszont novellát azonban igen.
Anna-NOM book-ACC not read-3SG COORD short story-ACC COORD yes ‘idem’

d. Mari PALIT szereti,
Mari-NOM Pali-ACC love-3SG
de/am/mig Bea ?viszont/?azonban/*pedig/*meg PÉTERT.
COORD Bea-NOM COORD Péter-ACC
‘Mari, she loves PALL, whereas Bea, she loves PÉTER.’

The occurrence of contrastive coordinators in these sentences reveals a lot about the nature of Contrastive Topics. We can see above in (33-34) that while de/am/míg can only be initial, viszont/azonban⁹ can be both initial or internal. Pedig/meg are different in nature: these can only occur in internal position, never in initial one.

Besides, there is another domain in which pedig/meg clearly differ from other coordinators. And this is their compatibility with negation. Note that the examples above were selected to show three different contrastive environments: in the (a) examples the predicates show contrast in that in the first clause we find a positive predicate, and in the second clause a negative one. In the (b) examples, this is the other way round: a negative predicate is followed by a positive one. In the (c) examples, two different positive predicates contrast. When we look at the distribution of contrastive coordinators in the three different types of contrastive environments, we find that while de/am/míg/viszont/azonban are insensitive to the nature of predicate contrast, pedig/meg are not compatible with contrasts involving negation. If negation is in the second clause, pedig/meg are marginal (34a); if negation is in the first clause, pedig/meg are clearly ungrammatical (34b). I will call this property negation-sensitivity.

The properties of contrastive coordinators in Hungarian are summed up in the following table.

<table>
<thead>
<tr>
<th>Table 1. Contrastive coordinators in Hungarian</th>
</tr>
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<tbody>
<tr>
<td></td>
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<tr>
<td>negation sensitive</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>negation insensitive</td>
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<td></td>
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</tbody>
</table>

⁹All of these coordinators with the exception of meg are capable of expressing single contrast as well. When not pair-contrastive, they always appear initial. De/am/viszont/azonban corresponds to ‘but’ and pedig/mig to ‘while’.

(i) Péter A BOLTBA indult, de/am/viszont/azonban A KOCSMÁBAN kötött ki.
Péter the shop-ILL left-3SG COORD the pub-INE ended-3SG PV
‘Péter left for the shop, but he ended up in the pub.’

(ii) Péter A KOCSMÁBAN kötött ki, pedig/mig A BOLTBA indult.
Péter the pub-INE ended-3SG PV COORD the shop-ILL left-3SG
‘Péter ended up in the pub, while he left for the shop.’
As the table shows, being negation insensitive correlates with the property that the coordinator can be initial, while being negation sensitive correlates with being internal.

As far as the structural positions of these coordinators are concerned, the above examples show that there must minimally be two different positions available in the Hungarian clause structure hosting contrastive coordinators. Schematically we are dealing with the following two positions:

\[(36) \quad [\text{coord de/am/mig \{} \text{Contrastive Topic} \quad [\text{coord viszont/azonban/pedig/meg \{\ldots\}]} ]\]

The two positions are usually not filled in one sentence, unless the initial one is filled with \textit{de/am/mig} and the internal one with \textit{viszont/azonban}. This combination gives a marginal result (35a,c vs. 35b). This tells us that the two coordinator positions in (36) are not in complementary distribution: both can be filled at the same time. As far as the exact structural positions of these coordinators is concerned, I assume that the initial coordinator position is similar to the position of English \textit{but} (I will refer to it as a &P); and the internal coordinator position on the other hand is the head position of a special Contrastive Topic projection\(^{10}\), which hosts the contrastive topcialized constituent in its specifier slot. I take it that the Contrastive Topic projection (CTopP) is always projected whenever there is a Contrastive Topic in a Hungarian clause. The head of this projection, CTop\(^0\) is optionally filled with an overt coordinator: it can remain empty as well, as we will see below. The syntactic position of the different contrastive coordinator elements in the Hungarian clause can be indicated the following way:

\[(37) \quad [[[CP1\ldots][CP2\ldots]\ldots[CPn \ldots] [\&P de/am/mig/viszont/azonban
[CTopP \text{Contrastive Topic} \quad [\text{CTop pedig/meg/viszont/azonban \{\ldots\}]}]]]\]

After introducing the CTopP position into the functional architecture, the question comes up whether this projection is the projection where we find left dislocates as well. To see this, consider the occurrence of contrastive coordinators with left dislocates:

\[(38) \quad a. \quad \text{Anna} \quad \sqrt{\text{könyvet olvas,}}\]
\text{Anna-NOM \quad book-ACC \quad read-3SG}
\text{de/\doline{\textit{?}}}am/mig/*viszont/*azonban \sqrt{\text{novellát nem.}}\]
\text{COORD \quad short story-ACC \quad not}
\"As for books, Anna reads them, but as for short stories, she does not read those.\"

\[b. \quad \sqrt{\text{Mari}} \quad \text{PALIT szereti,}}\]
\text{Mari-NOM \quad Pali-ecc love-3SG}
\text{*de/\doline{\textit{?}}}am/mig/*viszont/*azonban \sqrt{\text{Bea \quad PÉTERT.}}\]
\text{COORD \quad Bea-NOM \quad Péter-ACC}
\"Mari, she loves PÁLI, whereas Bea, she loves PÉTER.\"

\(^{10}\text{This was suggested to me by Balázs Surányi.}\)
(39) a. Anna √könyvet nem olvas,
Anna-NOM book-ACC not read-3SG
√novellát viszont/?azonban/*pedig/*meg igen.
short story-ACC COORD yes
‘As for books, Anna does not read them, but as for short stories, she does read those.’

b. √Mari PALIT szereti
Mari Pali-ACC love-3SG
√Bea viszont/?azonban/pedig/meg PÉTERT
Bea COORD Péter-ACC
‘Mari, she loves PALI, whereas Bea, she loves PÉTER.’

(40) Anna √könyvet olvas,
Anna-NOM book-ACC read-3SG
de/?ám/mig √novellát *viszont/*azonban nem.
COORD short story-ACC COORD not
‘As for books, Anna reads them, but as for short stories, she does not read those.’

(38) shows examples with coordinators in the initial position, (39) with coordinators in the internal position and (40) the occurrence of both types in one clause. As we see, initial coordinators (in the sense of Table 1) are compatible with left dislocation, initial-internal ones also, but only in internal position. Internal ones are not compatible with left dislocation at all. Both the initial and internal position of coordinators cannot be filled in one clause at the same time.

These findings first of all indicate that the presence of coordinators does not exclude the presence of left dislocation, so there is no complete complementary distribution between the two. However, complementarity shows up in one domain: in contexts where a positive predicate contrasts with a negative one. In these contexts, lack of any coordinator element is ungrammatical unless left dislocation intonation is present on the contrasted constituents. (41a,b) shows this, while (42c) shows that in case negation is not involved, left dislocation intonation is not necessary in the absence of contrastive coordinators.

(41) a. Anna *(√) könyvet nem olvas, *(√) novellát igen.
Anna-NOM book-ACC not read-3SG short story-ACC yes
‘As for books, Anna does not read them, but as for short stories, she does read those.’

b. Anna ??(√)könyvet olvas, ??(√)novellát nem.
Anna-NOM book-ACC read-3SG short story-ACC not
‘As for books, Anna reads them, but as for short stories, she does not read those.’

c. Mari PALIT szereti, Bea PÉTERT.
Mari-NOM Pali-ACC love-3SG Bea-NOM Péter-ACC
‘Mari, she loves PALI, whereas Bea, she loves PÉTER.’

This shows that left dislocation intonation on the contrastively interpreted topical
constituent fulfils the same role as a contrastive coordinator: they are both grammatical markers of pair-contrastive readings. When coordinators are absent and we are dealing with a positive-negative contrast between the predicates, left dislocation intonation is obligatory. This shows that left dislocation intonation and contrastive coordinators are two sides of the same coin: the former is a phonological, while the latter is a syntactic device for indicating pairwise contrastive interpretation.

Coming back to structural questions, note that left dislocates and Contrastive Topics can never occur together in a clause in any order, just as two left dislocates or two Contrastive Topics are ungrammatical within one clause (for illustration, see the next section). That is, triple contrast cannot be expressed in Hungarian:

(42)  a. *Anna könyvet ma nem olvas, de novellát holnap igen. 
     Anna-NOM book-ACC today not read-3SG but short story-ACC tomorrow 
     yes
     'Today, Anna does not read books, but tomorrow, she reads short stories.'

b. *Anna vörösten PALIT szereti, Bea kicsit PÉTERT.
     Anna-NOM madly Pali-ACC love-3sg Bea-NOM a bit Péter-ACC
     'Madly, Anna loves PALI, whereas a bit, Bea loves PÉTER.'

The two properties that we have seen in this section (the complementary distribution between Contrastive Topics and left dislocates, and the obligatory presence of left dislocation intonation without coordinators in contexts contrasting in positive/negative predicates like in (41a) above) suggest that

(i) left dislocates sit in the same position where Contrastive Topics do
(ii) the intonational "surplus" they have has the same role as contrastive coordinators, i.e. that of marking contrastive readings, and it can freely co-occur with some coordinators

On the basis of these findings I propose the same structural representation for left dislocates as for Contrastive Topics above in (36):

(43)  [[CP₁][CP₂]...[CPₖ] [&P de/ám [CTopP left dislocate [CTopP viszont/azonban [...]]]]

That is, left dislocates find themselves in the same structural slot in the clause: Spec,CTopP. The difference between (36) and (43) is only in the type of coordinators that can be found in each case: Contrastive Topics can appear with a larger variety of coordinators than left dislocates. This, however, is expected, given that left dislocation intonation has the same role as coordinator elements, as (41) has clearly shown.

The structural characterization in (36/43) is drawn on the basis of the distribution of Contrastive Topics and left dislocates with each other and with contrastive coordinators. The fact that I locate left dislocates in the same position as Contrastive Topics does not mean, however, that the properties of Contrastive Topics and left dislocates are completely the same. Here we have already seen that there is a
difference between the two in the type of coordinators they occur with. Furthermore, I have also mentioned that there is a difference between the two in intonation and the availability of resumptive pronouns. In the next section I illustrate properties of Contrastive Topics and left dislocates in comparison to the list of properties I have drawn for Topics (3.2.1).

3.2.2.4. Properties of left dislocates and Contrastive Topics
To give a full description of contrastive topical elements, in this section I list the properties of left dislocates (LD for short) and Contrastive Topics (CT for short).

- LD has a special rising tone, followed by a pause; CT does not
- there can be only one LD/CT per clause (44)

(44) a. *√Maritół √Péter nem kapott ajándékot.
   Mari-ABL Péter-NOM not got-3SG present-ACC
   ‘As for Péter, as for Mari, he did not get a present from her.’
   b. Maritół Pali VIRÁGOT kapott,
      Mari-ABL Pali-NOM flower-ACC got-3SG
      *Annától (pedig) Péter (pedig) AJÁNDÉKOT.
      Anna-ABL (COORD) Péter-NOM (COORD) present-ACC
      ‘From Mari, Pali got FLOWERS, whereas from Anna, Péter got a PRESENT.’

- LD/CT can be preceded by Topics (including sentence adverbials) (45)

(45) a. Tegnap √Péter nem kapott ajándékot Maritół.
    yesterday Péter-NOM not got-3SG present-ACC Mari-ABL
    ‘As for Péter, yesterday he did not get a present from Mari.’
   b. Tegnap Pali VIRÁGOT kapott Maritół,
      yesterday Pali-NOM flower-ACC got-3SG Mari-ABL
      Péter (pedig) AJÁNDÉKOT kapott Annától.11
      Péter-NOM (COORD) present-ACC got-3SG Anna-ABL
      ‘Pali, yesterday he got FLOWERS from Mari, whereas Péter, he got a PRESENT from Anna.’

11While the property of being preceded by a topic can be demonstrated in the first clause of a biclausal structure, it cannot be demonstrated in non-initial clauses. The reason is that the expression of contrast requires that no item precede the contrastive topic of the second clause. This is similar in other cases of contrast as well, for example, in the case of regular instances of focus:

(i) Péter AJÁNDÉKOT kapott, s (*tegnap) nem VIRÁGOT.
    Péter-NOM present-ACC got-3SG and (yesterday) not flower-ACC
    ‘Péter got a PRESENT and not FLOWERS yesterday.’
• LD/CT cannot be preceded by quantifiers (46)

    every present-ACC Péter-NOM today got-3SG
    ‘It was today that Péter, he got every present.’

    b. Két lánytól Pali VIRÁGOT kapott,
       two girls-ABL Pali-NOM flower-ACC got-3SG
       *mindenkitől Péter (pedig) AJÁNDÉKOT kapott.
       everyone-ABL Péter-NOM (COORD) present-ACC got-3SG
       ‘From two girls Pali got FLOWERS, whereas from everyone Péter got a
        PRESENT.’

• LD/CT need not be referential expressions (47)

(47) a. √Fel PÉTER ment a lépcsőn.
    up Péter-NOM went-3SG the stairs-SUP
    ‘Upwards, PÉTER went on the stairs.’

    b. Le PALI ment a lépcsőn
       down Pali-NOM went-3SG the stairs-SUP
       fel (pedig) PÉTER.
       up (COORD) Péter-NOM
       ‘Downwards, PALI went on the stairs, whereas upwards, PÉTER went on
        the stairs.’

• a universal quantifier can be both left dislocated and contrastive topicalized (48)

(48) a. √Mindenki nem kapott ajándékot.
    everyone-NOM not got-3SG present-ACC
    ‘Not everyone got a present.’

    b. Ketten bejőhetnek,
       two of them-NOM PV-come-POT-3PL
       mindenki viszont nem jőhet be.
       everyone-NOM (COORD) not come-POT-3SG PV
       ‘Two of them can come in, whereas everyone cannot come in.’

• LD/CT must be followed by at least one emphatic operator in its clause (49)

(49) a. *√Péter kapott ajándékot.
    Péter-NOM got-3SG present-ACC
    ‘As for Péter, he got presents.’

    b. *Pali kapott virágot Maritól,
       Pali-NOM got-3SG flower-ACC Mari-ABL
       Péter (pedig) kapott ajándékot Annától.
       Péter-NOM (COORD) got-3SG present-ACC Anna-ABL
       ‘As for Pali, he got flowers from Mari, whereas as for Péter, he got a
        present from Anna.’
LD can have a resumptive pronoun immediately following on the left edge of the clause, CT cannot (50)

(50)  
a. √Péter, (ő/az) AJÁNDÉKOT kapott.  
Péter-NOM (he/that-NOM) present-ACC got-3SG  
‘As for Péter, he got a PRESENT.’

b. *Pali, (ő/az) VIRÁGOT kapott,  
Pali-NOM (he/that-NOM) flower-ACC got-3SG  
Péter, (ő/az) (pedig) AJÁNDÉKOT kapott.  
Péter-NOM (he/that-NOM)(COORD) present-ACC got-3SG  
‘As for Pali, he got FLOWERS, whereas as for Péter, he got a PRESENT.’

As it is seen in these examples, left dislocation and contrastive topicalization pattern together in many respects, although not in all. I sum up the properties in the following table. For a better overview, the properties of regular Topics are also listed here from section 3.2.1. above.

Table 2. Properties of topical elements in Hungarian

<table>
<thead>
<tr>
<th>Properties</th>
<th>Topics</th>
<th>CTopics</th>
<th>LD</th>
</tr>
</thead>
<tbody>
<tr>
<td>(i) rising intonation followed by pause</td>
<td>*</td>
<td>*</td>
<td>✓</td>
</tr>
<tr>
<td>(ii) can have a resumptive pronoun</td>
<td>*</td>
<td>*</td>
<td>✓</td>
</tr>
<tr>
<td>(iii) can be a quantifier</td>
<td>*</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>(iv) one per clause</td>
<td>*</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>(v) it must be referential</td>
<td>✓</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>(vi) must be followed by an emphatic operator</td>
<td>*</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>

As Table 2 clearly shows, Contrastive Topics share some properties of Topics and left dislocates. In properties (i-ii) Contrastive Topics pattern with regular Topics. In properties (iii-vi) they pattern with left dislocates. This shows that we are dealing with a category independent of the other two; Contrastive Topics cannot be fully subsumed either under Topics or left dislocates.

4. Contrastive topicalization as the source of disjunctive vagy..., vagy... coordination

The previous sections have introduced contrastive topical elements in Hungarian in
some detail. It has been shown that these elements, Contrastive Topics and left dislocates alike, are hosted by a special functional projection, CTOPP in its specifier position. In this section it will be shown that the study of contrastive topicalization has relevance for hitherto neglected area of Hungarian syntax as well: the syntax of clausal disjunction structures. This topic is not only interesting for its own sake, but it also lays the groundwork for Chapter 4 of this dissertation. In Chapter 4 it will be shown that clausal disjunction underlies the so-called Hungarian-type *multiple partitive* construction, which features *wh*-elements in parallel clauses.

4.1. The properties of disjunctive *vagy...*, *vagy...* coordination

Semantic disjunction can be expressed with two disjunction elements in Hungarian: *akár* and *vagy*. Both introduce n-ary disjunctions and both are positioned before the disjunct they introduce. Semantically, the difference between the two is that *akár* can never indicate exclusive disjunction, while *vagy* can be used for exclusive disjunction.\(^{12}\) Syntactically, there is a difference between them, too: *akár* has to appear before each disjunct, while *vagy* need not. *Vagy* can be absent from all disjuncts except for the last one. These properties are illustrated in the following examples:

(51) a. \(^{*}(akár)\text{Péter}, \quad *(akár)\text{Mari}, \quad \text{akár} \text{Bea} \atop \text{or} \quad \text{Péter-NOM or Mari-NOM or Bea-NOM} \atop \text{‘whether Péter or Mari or Bea’} \atop \text{b. (vagy) Péter, \quad (vagy) Mari \quad vagy \quad Bea} \atop \text{or} \quad \text{Péter-NOM or Mari-NOM or Bea-NOM} \atop \text{‘Péter or Mari or Bea (but only one of them)’}

In the rest of this chapter I only discuss disjunction with *vagy* since this is the type of disjunction that will be relevant for the analysis in Chapter 4.

An example like (51b) might lead one to think that *vagy* can be optionally “dropped” in front of non-final disjuncts. However, this is not the case. When *vagy* is spelled out in front of each disjunct (paired *vagy*), we are dealing with a different construction from when it only appears in front of the last one (single *vagy*)\(^{13}\). The difference is present both semantically and syntactically. Semantically, the difference lies in exclusiveness: paired *vagy* is always exclusive, while single *vagy*

\(^{12}\)Throughout this dissertation I use the term “disjunction” to cover both the semantic operation disjunction and the syntactic realization of it. The latter, strictly speaking, is an instance of coordination.

\(^{13}\)I use the term *single* in the sense of “not doubled”, to contrast with *paired*. Single *vagy* need not be literally single in cases where there are more than two disjuncts. In this case, by single *vagy* we have to understand either of the following two structures:

(i) a. Péter \text{vagy} \text{Mari} \text{vagy} \text{Bea} \atop \text{Péter-NOM or Mari-NOM or Bea-NOM} 

b. Péter, \text{Mari} \text{vagy} \text{Bea} \atop \text{Péter-NOM Mari-NOM or Bea-NOM}

The crucial distinction between paired and single *vagy* is that paired *vagy* appears in front of the first disjunct as well.
need not be exclusive. The following examples show this:

(52)  

Mari-NOM taller Péter-DAE or Bél-ADE  
‘Mari is taller than Péter or Bél (i.e. she is taller than both of them).’

b. Mari vagy Péter-nél vagy Bélánál magasabb.  
Mari-NOM or Péter-DAE or Bél-ADE taller  
‘Either it is the case that Mari is taller than Péter or it is the case that she is taller than Bél (i.e. she must be shorter than the taller boy)’

(52a) is true in case Mari is the tallest in the group consisting of herself, Péter and Bél. In this case, vagy can actually be exchanged for és ‘and’, without a change in meaning.14 (52b) on the other hand can only mean that Mari’s height is in between the heights of the boys. If Bél is taller than Péter, then Mari is taller than Péter, but shorter than Bél. The reading of vagy is exclusive; it can only be true of one boy that Mari is taller than this boy.

Syntactically, there are also differences between paired and single vagy. The string with single vagy can occur anywhere, like in the focus position (53a), postverbally in neutral clauses (53b) or in the topic position (53c):

(53)  

Mari-NOM Péter-DAE or Bél-ADE taller  
‘Mari is taller than Péter or Bél.’

b. Mari magasabb Péter-nél vagy Bélánál.  
Mari-NOM taller Péter-DAE or Bél-ADE  
‘Mari is taller than Péter or Bél.’

c. [Péternél vagy Bélánál] MARI magasabb.  
Péter-DAE or Bél-ADE Mari-NOM taller  
‘It is Mari who is taller than Péter or Bél.’

Paired vagy on the other hand can only appear with the disjuncts (or elements thereof) focused (54a). It cannot for example be in postverbal positions in neutral clauses (54b) or in topic position (54c).

(54)  

Mari-NOM or Péter-DAE or Bél-ADE taller  
‘Mari is taller than either Péter or Bél.’

b. *Mari magasabb [vagy Péternél vagy Bélánál].  
Mari-NOM taller or Péter-DAE or Bél-ADE  

c. *[Vagy Péternél vagy Bélánál] MARI magasabb.  
or Péter-DAE or Bél-ADE Mari-NOM taller

---

14 Note, however, that if the string Péternél vagy Bélánál is placed in the focus position, the reading of this disjunction becomes exclusive, exactly as in (52b) (István Kenesei, p.c.):

(i) Mari [PÉTERNÉL vagy BÉLÁNÁL] magasabb.  
Mari-NOM Péter-DAE or Bél-ADE taller  
‘Either it is the case that Mari is taller than Péter or it is the case that she is taller than Bél.’
I take it that the focus restriction on paired vagy comes from its semantics. We have seen in section 3.1.1 above that phrases with an exclusive focus interpretation have to move to the special focus position in Hungarian. It seems that disjunctive phrases with a necessarily exclusive interpretation also have to move to this position due to their exclusive interpretation.15

The other syntactic difference between single and paired vagy concerns the size of the disjoined material and the category of the resulting disjunction as a whole. If we disjoin DPs, for example, the resulting category depends on whether we use single vagy or paired vagy. Single vagy yields a DP constituent externally, while paired vagy is not recognized as a DP; the whole string does not form a DP constituent. The difference is illustrated in (55):

\[
\begin{align*}
\text{(55) } & \text{ a. } [\text{DP}_{\text{Péter}}, \text{DP}_{\text{Mari}}, \text{vagy } \text{DP}_{\text{Bea}} ] \\
& \text{ b. } \ldots \text{vagy } [\text{DP}_{\text{Péter}}, \text{vagy } \text{DP}_{\text{Mari}}, \text{vagy } \text{DP}_{\text{Bea}} \ldots] 
\end{align*}
\]

This difference between the two structures has been suggested (although not proven) by Kenesei, Vago and Fenyesi (1998).16 Here I bring two pieces of evidence for this structural difference: one involves the availability of constituent negation and the other the readings we get when we place the disjoined material in a matrix clause.

Constituent negation is only available with single vagy structures, not with paired vagy constructions. This proves that the former forms one constituent, while the latter does not:

\[
\begin{align*}
\text{(56) } & \text{ a. } \text{Mari} \text{-NOM not [Péternél vagy Bélánál] magasabb.} \\
& \text{ Mari-NOM not Péter-ADE or Béla-ADE taller} \\
& \text{ "Mari is not taller than Péter or Béla."} \\
& \text{ b. } \text{*Mari nem [vagy Péternél vagy Bélánál ] magasabb.} \\
& \text{ Mari-NOM not or Péter-ADE or Béla-ADE taller} 
\end{align*}
\]

The other test we can use to show the difference between the two structures looks like the usual constituency test in Hungarian, focusing: placing a constituent into the single preverbal focus position of the clause. This test in itself does not differentiate right away between paired and single vagy structures: both can appear in the focus position as (57a,b) show. Recall that focusing in Hungarian is always detectable from verb movement up to Foc\(^0\).
(57) a. [Vagy Péter, vagy Marit, vagy Beáta] akarom, hogy meghívj.
or Péter-ACC or Mari-ACC or Bea-ACC want-1SG that PV-invite-SUBJ-2SG
(i) ‘I either want that you invite Péter, or I want that you invite Mari, or I want that you invite Bea.’
(ii) ‘*I want that you invite either Péter, Mari or Bea.’
b. [Péter, Mari, vagy Beáta] akarom, hogy meghívj.
Péter-ACC Mari-ACC or Bea-ACC want-1SG that PV-invite-SUBJ-2SG
(i) ‘I either want that you invite Péter, or I want that you invite Mari, or I want that you invite Bea.’
(ii) ‘I want that you invite either Péter, Mari or Bea.’

The two sentences, (57a) and (57b), however, have different interpretations. (57a) can only be interpreted with disjunction taking matrix scope, thereby scoping over want. This means that (57a) contains disjunction over propositions: it is the wanting events that are disjoined (indicated in 57ai). (57b) is ambiguous in this respect: the disjunct can have matrix scope (this is when we get the same readings as in 57a), or it can have embedded scope. In the latter case we have disjunction over individuals: I want a situation in which Péter, Mari or Bea will get invited. This meaning difference leads us to conclude that in (57b) it is possible to extract the whole disjunctive phrase [Péter, Mari vagy Beáta] into the matrix focus position. This keeps disjunction to the level of individuals. In (57a), this option is not available: due to the fact that the string vagy Péter, vagy Marit, vagy Beáta do not form a DP constituent, the string in itself could not undergo movement into the matrix clause.

If we are on the right track in concluding that there is no constituency in the case of paired vagy structures, the fact that the disjuncts still appear adjacent to each other in this case must be the result of some kind of phonological reduction in all but the last clause along the following lines:

(57b') [Vagy Péter akarom, hogy meghívj], [vagy Marit akarom, hogy meghívj], [vagy Beáta akarom, hogy meghívj].

This means that disjunction with paired vagy structures in Hungarian involve disjoined clausal material, with reduction involved in some of the clauses. Note that word order shows us the structure of the clauses: the DPs are followed by the verb and are pronounced with heavy stress, which characterizes exclusive focus. This shows us that focusing is involved in all clauses, that is, the disjoined material is minimally as big as FocP:

(57b") [vagy [FocP PÉTER, akarom [hogy meghívdt]], [vagy [FocP MARIT, akarom [hogy meghívdt]], [vagy [FocP BEÁT akarom [hogy meghívdt]]]

What is left to determine is what the position of vagy is in this structure. Before turning to this, note that the proposed treatment of paired vagy structures in terms of clausal disjunction is not unprecedented in the literature. It seems that other
languages also possess disjunctive structures that necessarily involve clausal material.

Schwarz (1999, 2000) proposes a treatment for unbalanced *either – or* clauses in English that is similar to my treatment in (57b'). The following provides an example for unbalanced disjunction:

(58) John either ate rice or beans.

This construction is called "unbalanced", because if one takes the position of *either* to mark the left edge of disjunction (Quine 1967, Dougherty 1970, Stockwell et al 1973), the disjoined structures are non-identical categories:

(58') John either [vp ate rice] or [np beans].

Schwarz argues that there is reason to believe that unbalanced disjunction contains balanced disjunction of at least VP-size (but possibly bigger) material, followed by reduction (i.e. silencing some material in one disjunct under identity with material in the first disjunct, called gapping in Ross 1967):

(58") John either [vp ate rice] or [vp ate beans].

Evidence for this claim comes from sentences like (59):

(59) ??Either they locked you or me up.

If the particle *up* follows the last disjunct, the sentence is very marginal. This can be explained if clausal disjunction is involved in (59), and *up* in the second disjunct is not licensed due to the fact that it lacks a correlate in the first disjunct:

(59') Either [np they locked you] or [np they locked me up]

Another argument for clausal disjunction in examples like (58) comes from the grammatical status of (60) as opposed to (59):

(60) They locked you up or me.

If (60) was to originate not from clausal disjunction of [np [they locked you up] or [they locked me up]], but from nominal disjunction of [np [you] or [me]], (59) would have to be derived via extraposition of [or me] from the following underlying structure:

(61) Either they locked you or me up.

We have seen however, that as a surface structure, (61) (which equals (59)) is highly marginal. Therefore, since a marginal structure cannot give rise to a grammatical one, it must be the case that (60) does not contain NP-disjunction of [np [you] or
but clausal disjunction of the structure \[ \text{IP [they locked you up]} \text{ or [they locked me up]} \]. This proves that sentences with unbalanced disjunction contain disjoined clauses.

This section has shown that exclusive disjunctive, paired \textit{vagy} clauses in Hungarian, similar to English unbalanced disjunction, involve disjunction of clausal material.

### 4.2. The structure of disjunctive \textit{vagy}...,\textit{vagy}... coordination

As noted above, in Hungarian the clausal material contained in \textit{vagy}...,\textit{vagy}... disjunction is minimally a string that contains either a FocP or a DistP. There are several indications for this. It can be observed for example that instances of paired \textit{vagy} are always followed by constituents that are pronounced with the heavy stress characteristic of focused items (the focused string can be as large as a whole clause, see (62d)). Beside phonological indications, the focus structure is also evident from syntactic indications (word order) as well: the disjunct that does not get ellipted always shows up with a verb – preverb order that indicates that focusing has taken place:

\[(62)\]
\[
a. \quad \text{Vagy PÉTERT, vagy MARIT, vagy BEÁT hivom meg.} \\
   \text{or Péter-ACC or Mari-ACC or Bea-ACC invite-1SG PV}
\]
\`
I invite either Péter, Mari or Bea.'
\[
b. \quad *\text{Vagy Péter, vagy Marit, vagy Beáth meghivom.}
\]
\text{or Péter-ACC or Mari-ACC or Bea-ACC PV-invite-1SG}
\[
c. \quad \text{Vagy MINDENKI bejöhet, vagy SENKI sem.}
\]
\text{or everyone-NOM PV-come-POT-3SG or noone-NOM not}
\`
‘Either everyone can come in, or noone.’
\[
d. \quad \text{Vagy [p=meghívom Beáth], vagy [pelmegyek moziba].}
\]
\text{or PV-invite-1SG Bea-ACC or PV-go-1SG cinema-ILL}
\`
‘I either invite Bea, or I go to the cinema.’
\]

(62a) contains \textit{Péter}, \textit{Marit} and \textit{Beáth} in focus in the respective clauses, as is clear from the verb-preverb order in the last full clause. With neutral word order the sentence is ungrammatical (62b). (62c) shows clauses with emphatic quantifiers, and (62d) shows an example where whole clauses are in focus.

On the basis of these examples we can assign the following structure to disjunction with paired \textit{vagy}:

\[(63)\]
\[
[\text{vagyP vagy } \text{FocP PÉTERT } [\text{Foc' } \emptyset] ],
\]
\[
[\text{vagyP vagy } \text{FocP MARIT } [\text{Foc' hivom } [\text{AspP meg } ] ] ] .
\]

(63) shows that exclusive disjunction in Hungarian contains the juxtaposition of FocP structures. This differentiates paired \textit{vagy} structures from structures with a single \textit{vagy}: the former can only disjoin clauses, while the latter can disjoin smaller constituents, like DPs, for example. The two have the following structures
respectively:

(64)  
a. \[\text{vag} \text{y} \text{PDP/AP/PP vagy} \text{DP/AP/PP}\] (single vagy)  
b. \[\text{vag} \text{y} \text{DP/FocP} \text{vagy} \text{DP/FocP}\] (paired vagy)

I use vagyP in these structures to indicate that a phrase is recognized externally as a constituent. One difference we find between (64a) and (64b) is the difference in constituency: in (64a) the whole string including all disjoined elements can form a constituent, while in (64b) this is not the case.

The question that comes up when considering the structure in (64b) is what the position of the vagy elements are. If we start out from the assumption that vagy is a syntactic head (this assumption will be motivated below), vagy could be treated the way coordinators are in the syntactic literature (Kaye 1994, Zoener 1995, Johannessen 1998): as a head projecting its own functional projection, a disjunctive phrase, in the following fashion (I do not indicate the internal structure of the vagyP here):

(65) \[\text{vag} \text{y} \text{[DP/FocP ...]} \text{vagy} \text{[DP/FocP ...]}\]

In the literature there are several proposals concerning coordinators that project their own projections. In Hungarian we can, however, identify this projection even further: there are reasons to believe that vagy heads the Contrastive Topic projection or the projection that corresponds to that. It can be shown that vagy spells out a head in a structure that exists independently of disjunction. I put forward the claim that vagy in paired vagy disjunction spells out a Contrastive Topic head in the clause structure of Hungarian:

(66) \[\text{CTop} [\text{CTop} \text{vagy} [\text{DP/FocP ...}} [\text{CTop} [\text{CTop} \text{vagy} [\text{DP/FocP ...}}])\]

That is, disjunctive vagy is a head that appears in the structural position which is parallel to CTop0 in contrastive topicalization structures. The structure in (66), however, does not mean that vagy..., vagy... structures share all the properties of contrastive topicalization constructions. When vagy is present in CTop0, we are not dealing with run-of-the-mill contrastive topicalization. The Spec,CTopP position in these cases for example cannot be filled by any overt constituent:

(67) \*\[\text{CTop} [\text{CTop} \text{vagy} [\text{FocP BEÁT hívja meg}}]].\]
    Péter-NOM  or  Bea-ACC invite-3SG PV,
    [CTop Béla [CTop vagy [FocP MARIT]]]
    Béla-NOM  or  Mari-ACC

I take this to be the result of semantic incompatibility between contrastive topicalization and sentential disjunction: the two cannot be expressed at the same time. This can be interpreted in two ways syntactically. One option would be to say that sentential disjunction and contrastive topicalization instantiate a more general structure, with the following schematic structure:
In case Spec,XP is occupied by a constituent, and contrastive coordinators can be present in $X^0$, we are dealing with contrastive topicalization. In case we find vagy in $X^0$, we are dealing with disjunction as a result of the fact that the lexical features of vagy are present on the maximal category XP. The other way to explain the ungrammaticality of (67) would be to say that disjunction is a run-of-the-mill contrastive topicalization structure, in which Spec,CTopP is filled with a covert item. This element can be the disjunctive operator (see Larson 1985 for disjunction being scopal and therefore involving an operator):

$$\text{(68)} \quad [X^0 \ [\text{DistP/FocP} \ldots]], \ [X^0 \ [\text{DistP/FocP} \ldots]]$$

Deciding between the scenario in (68) or in (69) is a difficult task that I do not undertake here. For the understanding of what follows, the structure in (66) is a good enough approximation of the state of affairs, so I will stick to this for ease of exposition.

There are some indications that the structural representation in (66) is on the right track. The contrastive topic related nature of vagy is indicated by the distribution of the contrastive coordinator pedig, the obligatory presence of FocP in the structure and the multiplicity requirement on clauses in disjunction. These properties argue for placing vagy in a Contrastive Topic projection. The position vagy occupies can be decided upon with the help of the historical development of vagy structures: this indicates that vagy is a head in present-day Hungarian. These arguments together support the structure in (66). In what follows I will review these arguments.

One of the earmarks of disjunction with paired vagy (as opposed to single vagy) is the optional appearance of the coordinator pedig following the last vagy element. Pedig, when present, is always right adjacent to vagy: nothing can intervene between the two. Some illustrative examples are given in (70):

$$\text{(70)} \quad \text{a. Vagy Pétert, vagy Marit, vagy (pedig) Beáť hívom meg, or Péter-ACC or Mari-ACC or (COORD) Bea-ACC invite-1SG PV}$$
$$\quad \text{`I either invite Péter, Mari or Bea.'}$$
$$\text{b. Vagy Pétert, vagy Marit, vagy (*holnap) pedig Beáť hívom meg, or Péter-ACC or Mari-ACC or tomorrow COORD Bea-ACC invite-1SG PV}$$
$$\text{`Either today or tomorrow I will invite Bea.'}$$
$$\text{c. Vagy ma, vagy (pedig) holnap hívom meg Beáť, or today or COORD tomorrow invite-1SG PV Bea-ACC}$$
$$\text{`Either today or tomorrow I will invite Beáť.'}$$
$$\text{d. Vagy Péter meghívija Beáť, vagy (pedig) elmegyek mozipa, or Péter-NOM PV-invite-3SG Bea-ACC or COORD go-1SG cinema-ILL}$$
$$\text{`Either Péter invites Beáť or I go to the cinema.'}$$

Note that pedig is ungrammatical with single vagy (71a,b), unless that disjoins clauses (71c):
a. *[Péter, Marit, vagy pedig Beát] hívom meg.  
Péter-ACC Mari-ACC or COORD Beá-ACC invite-1SG PV  
'I invite Péter, Mari or Beá.'

b. *[Ma, vagy pedig holnap] meghívom Beá.  
today or COORD tomorrow PV-invite-1SG Beá-ACC  
'Today or tomorrow I invite Beá.'

c. Meghívom Beá, vagy pedig elmegyek moziba.  
invite-1SG Beá-ACC or COORD PV-go-1SG cinema-ILL  
'I invite Beá or I go to the cinema.'

The facts in (71) show that *pedig* is only available in clausal disjunction structures. Its presence can be indicative of the structure we are dealing with, due to the fact that *pedig* has a special distribution. *Pedig* is a sentential coordinator in Hungarian, and it has two occurrences. In one of its occurrences (see section 3.2.2.2), it figures as an internal pair-contrastive coordinator meaning 'whereas', always following a Contrastive Topic:

(72) Mari PALIT szereti, Beá pedig PÉTERT.  
Mari-NOM Pali-ACC love-3SG Beá-NOM COORD Péter-ACC  
'Mari, she loves PAIL, whereas Beá, she loves PÉTER.'

In its other occurrence, *pedig* is an initial coordinator, in the meaning of while/although (see fn. 8 above):

(73) Péter elfárad a futásban, pedig erôs.  
Péter-NOMPV tired-3SG running-INE COORD strong  
'Péter gets tired of running, although he is strong.'

Out of the two uses, the *pedig* appearing after *vagy* in (70) looks like the internal pair-contrastive coordinator that shows up with contrastive topicalization, given that it always appears in paired clauses and follows (rather than precedes) the *vagy* in these cases, i.e. it is necessarily internal, not initial. If we take the *pedig* that shows up with paired *vagy* structures to be a contrastive coordinator, it must be the case that the structure we are dealing with is that of contrastive topicalization, since pair-contrastive *pedig* only shows up in these structures.

Beside the availability of *pedig*, there are other properties, too, that show a parallel between sentences with contrastive topicalization and *vagy...vagy...* sentences. One such common property is that both contrastive topicalization and *vagy...vagy...* structures necessarily involve exclusive focus constituents (or other contrasting operators) in each parallel clause. This was shown to be the case with contrastive topicalization in the previous section (example 49) above. For *vagy*, it was illustrated above in (54a) and (62).

On the basis of the above evidence I suggest that paired *vagy* occurs in contrastive topicalization structures. In (37) in section 3.2.2.3, I have proposed the following structure for contrastive topicalization:
My null hypothesis is that paired vagy structures also instantiate a structure like in (37). The question is, where to place the vagy elements? If vagy is phrasal, it could fill the Spec. CTopP position, and act as a Contrastive Topic. If vagy is a head, the most plausible position for it is CTop$^0$. In this case Spec. CTopP is not filled with any overt category, and vagy pedig form a complex head spelling out CTop$^0$. The two options are represented in (74) and (75):

(74) $\text{CTopP} \{\text{vagy [FocP PÉVERT]}, \text{CTopP} \{\text{vagy [CTopP pedig [FocP MARIT hivom meg ]]}, \text{CTopP} \{\text{Péter-ACC}, \text{CTopP} \{\text{vagy pedig [FocP MARIT hivom meg ]} \}}\} \} \}\$  

or Péter-ACC or (COORD) Mari-ACC invite PV

‘I either invite Péter or Mari.’

(75) $\text{CTopP} \{\text{vagy [FocP PÉVERT]}, \text{CTopP} \{\text{vagy pedig [FocP MARIT hivom meg ]} \}\} \}$.

While both options are in principle tenable, the choice falls on the second one. Not only to keep in line with works that argue for the head status of the coordinator elements, but also because historical developments support the head (rather than the phrasal) status of vagy. The historical facts in turn also support the view that vagy is an element in the left periphery of the Hungarian clause structure, thereby constituting additional arguments for (66) above.

As far as the origins of vagy are concerned, it had a development similar to many disjunctors in other languages: it originates from a verb. Hungarian vagy derives from the third person singular form of the verb lenni ‘be’ (Benkő 1991). Originally, according to Benkő (1991), this verb form appeared combined with the sentential pronominal az ‘that’ in the following way:

(76) Az$_i$ vagy [PÉVERT hivom meg],  $\text{az}_i$ vagy [MARIT hivom meg].  

that-NOM is Péter-ACC invite-1SG PV  that-NOM is Mari-ACC invite-1SG PV

‘The situation is that I invite Péter, the situation is that I invite Mari.’

Thus, the origins of disjunction in Hungarian can be traced back to an $\text{az} + \text{vagy} ‘\text{that} is’$ predication, which was used to introduce propositions that contrast with each other. In (76) there are two states of affairs contrasted: one in which I invite Péter and one in which I invite Mari. Az vagy (which later underwent contraction resulting in avagy ‘or’), clearly behaved like a main clause formally, too. This can be seen from some historic examples where the embedded proposition shows up with a complementizer element (Benkő 1991):

(77) Vagy te légy isten [...], avagy hogy istenek fia.  

or you-NOM be-SUBJ-2SG God or that God-DAT son-POSS.3SG

‘You will be either God [...], or the son of God.’

\[\text{17}\text{The 3SG form of the verb lenni ‘be’ in present day Hungarian is vam. In earlier stages of the language, however, this form was vagy, which is still found to date in the dialectal form vagyom ‘is’. Note also that the non-exclusive akár (see 31a above) also originates from a verb: from akar ‘want-3SG’.}\]
In present-day Hungarian the complementizer cannot show up in clausal disjunction any more, nor can the a- element be spelled out in front of vagy in standard Hungarian (although avagy is still found in archaic/literary registers). Note, however, that while (76/77) are not grammatical in present-day Hungarian, there is an acceptable construction similar to these in present-day Hungarian, which also involves the juxtaposition of clauses, preceded by the copula. The meaning of this sentence also contains disjunction, although non-exclusive:

(78) Van, hogy esik, van, hogy nem.
be-3SG that rain-3SG be-3SG that not
‘Sometimes it is raining, sometimes it is not.’

The absence of the complementizer in present-day Hungarian indicates that the original a(vagy) sequence has been lexicalized into the single word vagy, in a process of grammaticalization. Grammaticalization resulted in the disjunctor vagy, such that the original verb (i) lost its subject argument (a ‘that’), (ii) lost its status as a main clause predicate. This is exactly the expected process of grammaticalization affecting verbal elements. Klamer (2000) shows that grammaticalization of verbal elements frequently occurs in languages exactly this way. For example, verbs of speech, thoughts and perceptions grammaticalize into complementizers, as the following Buru (an Austronesian language) example shows:

(79) Sira em-tako fen sira dapak eflali.
3PL STAT-fear FEN(=that) 3PL get beat
‘They were afraid that they would be beaten.’

FEN ‘that’ originates from the verb meaning ‘think/say/affirm’. As a result of semantic bleaching, this verb lost its argument structure (Lightfoot 1979) and underwent a category shift from the lexical category V^0 to the functional category C^0.

I assume grammaticalization affected the Hungarian a(vagy) structure in a similar way. Vagy lost its subject and became a functional element. Since it underwent a similar grammaticalization process as fen, it is reasonable to think that it, too, ended up as a head category. Position-wise it shifted from a main clause predicate position to a head position in the clause which was originally its embedded complement. The ungrammaticality of (77) in present-day Hungarian shows that vagy is no longer higher than C^0 in the structure of the clause. This is compatible with the view that it spells out the CTopP head, as indicated in (66).

To support the above sketched development of vagy from a verbal element, let me mention other languages where the same phenomenon can be attested in the development of disjunctors. The Dutch exclusive disjunctor hetzij has the same internal complexity as Hungarian a(vagy) ‘that is’:

(80) het-zij
it-be-SUBJ-3SG
Hetzij originally was a main clause predicate, just like vag, taking a whole clause as its complement. This is visible in present-day Dutch as well. Hetzij can still appear with a complementizer dat ‘that’ following it (although dat can be absent as well):

(81) \textit{Hetzij} (dat) het regent, \textit{hetzij} (dat) het droog blijft.  
\textit{or} (that) it-NOM rain-3SG \textit{or} (that) it-NOM dry stay-3SG  
‘Either it rains, or it does not rain.’

Italian \textit{sia} ‘be-SUBJ-3SG’ has the same distribution in its use as a disjunct. It does appear with an embedded clause in present-day Italian (\textit{che} ‘that’ cannot be omitted):

(82) \textit{Siache} venga, \textit{sia} che non venga, …  
\textit{or} that come-3SG \textit{or} that not come-3SG  
‘Either he comes or not, …’

On the basis of the above examples we see that Italian, Dutch and Hungarian represent three different stages of the grammaticalization process as far as the position of the resulting element is concerned. The Italian \textit{sia} preserved most of its main clause status – it still has to appear with a CP complement. Hungarian \textit{vagy} was effected by grammaticalization most strongly: it can only appear as a left-peripheral functional element, lower than \textit{C^0}. Dutch \textit{hetzij} is between Italian and Hungarian: it represents a transitory stage between the two.

To summarize this section, on the basis of the argumentation presented above I proposed to assign the following structure to clausal disjunction in Hungarian:

(66) \[ [\text{CTop}^p \ [\text{CTop}' \ \textit{vag}^y \ [\text{DistP/FocP} \ldots]], \ [\text{CTop}^p \ [\text{CTop}' \ \textit{vag}^y \ (\textit{pedig}) \ [\text{DistP/FocP} \ldots]]]. \]

This analysis has the following advantages. First, if paired \textit{vag}y can only appear in contrastive topicalization in present-day Hungarian, the fact that this type of disjunction is necessarily clausal, gets syntactically coded. Second, the fact that \textit{pedig}, which can only appear with clausal structures, can naturally occur with initial \textit{vag}y structures also falls into place. The contrastive topicalization scheme in (66) provides \textit{pedig} with its natural place: it is the spellout of the \textit{CTop}^0 head, like in run of the mill contrastive topicalization structures. When \textit{pedig} is spelled out overtly, I assume it forms a complex head with \textit{vag}y also base-generated on the \textit{CTop}^0 head. Last but not least, the proposed structure is intuitively correct in the semantic sense. Contrastive topicalization and disjunction have a lot in common. We can say in fact that disjunction is contrastive topicalization with the strongest sense of contrast: the two clauses contrast so much that only one of them can be true at a time.
5. The distribution of *wh*-items in Hungarian

5.1. *Wh*-items as variables

This dissertation discusses the syntax of *wh*-items in Hungarian. *Wh*-items form a closed class in natural languages, and display a particular morphology. In some languages, like in English, their distribution is rather restricted. They are used to question a constituent in questions or they are used as relative pronouns in relative clauses. In other languages, however, they are found in different roles as well, with varying interpretations. In these languages their interpretation is dependent on the configuration they occur in. Depending on the configuration they can appear with an existential meaning or with other quantificational meanings. This lead many researchers to the conclusion that *wh*-items show quantificational variability, and their actual interpretation is always dependent on the configuration they occur in (Postma 1995):

(83) The interpretation of *wh*-items is determined configurationally.

In this chapter I review some of the literature that lead to the conclusion in (83), and show that (83) holds for Hungarian.

5.1.1. *Wh*-items cross-linguistically

The earliest transformational accounts that analyze question *wh*-items in some depth were Chomsky (1964), Katz and Postal (1964) and Klima (1964). It was suggested by these authors that *wh*-items are composite elements, consisting of two parts: a question operator (*wh*-part), and, depending on the nature of the question word, an indefinite or a definite pronoun:

(84) who = *wh* + someone  
what = *wh* + something  
which = *wh* + that

While in English there is little prima facia evidence for this state of affairs (for some evidence see Sloan 1991), other languages supply more direct evidence for the composite/indefinite nature of *wh*-items. Research by Kuroda (1965) and Nishigauchi (1990) on Japanese and Huang (1982), Cheng (1991) and Tsai (1994) on Chinese supports the claim in (83) for these languages with different factual evidence: in Chinese it is the case that bare *wh*-items themselves can be used as indefinite pronouns, i.e. they take part in an interrogative/existential alternation, which is conditioned by the context. In another set of languages, where Japanese and Hungarian also belong, the interrogative/existential alternation is morphologically marked: while the interrogative reading is available for bare *wh*-items, we get an existential reading when the *wh*-item occurs with a particular suffix. Beside suffixed *wh*-items, however, we can also find bare *wh*-items with other readings in certain specific configurations. Below I will give a somewhat detailed analysis of these configurations. But before turning to Hungarian, I illustrate the behaviour of
Chinese and Japanese *wh*-items.

Chinese *wh*-items can have an interrogative, an existential or a universal interpretation depending on the context. The following shows that a *wh*-item is interpreted as an interrogative pronoun in a question with a question particle (85a); while it is interpreted as an existential when it is in a yes/no question (85b) (Cheng 1991):

(85) a. hufei chi-le shenme (ne)  
    Hufei-NOM eat-ASP what-ACC Q\textsubscript{wh}  
    ‘What did Hufei eat?’

b. qiaofong mai-le shenme ma  
    Qiaofong-NOM buy-ASP what-ACC Q\textsubscript{yn}  
    (i) ‘*For what thing such that Qiaofong bought it or not?’
    (ii) ‘Did Qiaofong buy anything?’

c. qiaofong you-mei-you mai shenme  
    Qiaofong-NOM have-not-have buy what-ACC  
    (i) ‘Did Qiaofong buy anything?’
    (ii) ‘*Which of buying or not buying does Qiaofong do to what?’

If the *wh*-item is in the scope of negation, it can optionally be interpreted as an interrogative pronoun or an existential one:

(86) guojing mei-you mai shenme  
    Guojing-NOM not-have buy what-ACC  
    (i) ‘Guojing didn’t buy anything.’
    (ii) ‘What didn’t Guojing buy?’

Finally, if the *wh*-item occurs together with *dou* ‘all’, it is interpreted as a universal quantifier:

(87) botong shenme dou chi  
    Botong-NOM what-ACC all eat  
    ‘As for Botong, he eats everything.’

Japanese is similar to Chinese in that *wh*-items are interpreted in various ways, as interrogatives, existentials or universals. However, Japanese differs from Chinese in that *wh*-items can also be morphologically marked for one interpretation or the other. Once they are marked, their interpretation is fixed: they become unambiguous. For example, if they are suffixed with –*ka*, they are interpreted as existentials. If they appear with –*mo*, they are interpreted as universals. If the whole sentence is marked with –*ka*, then they are interpreted as question words (Nishigauchi 1990):

(88) a. Dare-ga ki-masu-ka  
    who-NOM come-Q  
    ‘Who is coming?’
b. Dare-ga ki-te mo, boku-wa aw-a-nai
   who-NOM come Q I-T meet-not
   ‘For all x, x comes, I would not meet x.’

c. Dare-kara-ka henna tegami-ga todoi-ta
   who-from-Q strange letter-NOM arrived
   ‘A strange letter came from somebody.’

Japanese \textit{wh}-items are interesting for other reasons as well. They constitute the basis of the different quantificational paradigms that give rise to quantified pronouns (Kuroda 1965, Nishigauchi 1990, Watanabe 1992). In each of these paradigms we find a suffix and a \textit{wh}-item that serves as the core:

\begin{verbatim}
(89) dare ‘who’ dare-mo ‘everyone’ dare-ka ‘someone’
nani ‘what’ nani-mo ‘everything’ nani-ka ‘something’
doko ‘where’ doko-mo ‘everywhere’ doko-ka ‘somewhere’
itsu ‘when’itsu-mo ‘whenever’itsu-ka ‘sometime’
\end{verbatim}

What the examples in (88/89) show is that there is an alternation between the interrogative and the indefinite readings of \textit{wh}-items. The indefinite reading is only present if there is a certain affix (-\textit{ka}) present as well. This suggests that the reading we get is linked to the presence of a particular affix. On the basis of these examples Kuroda (1965) suggested to treat bare \textit{wh}-items as elements lacking inherent quantificational force of their own. Since the quantificational affixes mark the interpretation of these elements, it is these affixes themselves that can be taken to bring in the quantificational force in each case. The affixes are operators: they bind the \textit{wh}-items. It follows then that the \textit{wh}-items themselves are variables, in need of binding. This, together with the data in (88), give enough grounds to form the following null hypothesis:

\begin{verbatim}
(90) \textit{Wh}-items are variables in all their occurrences in Japanese.
\end{verbatim}

That is, being a variable is an inherent property of Japanese \textit{wh}-items. Nishigauchi (1990) takes up this line of reasoning and treats \textit{wh}-items on a par with indefinites in Heim’s (1982) framework, which are also argued to show quantificational variability.

(90) makes reference to questions as well, since questions also involve \textit{wh}-items. If (90) is indeed true, there must be a binder that provides the \textit{wh}-items with an interpretation in questions, too. In many well-known languages \textit{wh}-items in questions show up as morphologically bare elements: they do not bear suffixal morphological markers that would unambiguously mark question word interpretation. The element that is expected to do the binding in questions should be an element that is present in all constituent questions in a given language. Looking at questions crosslinguistically, there seem to be elements that are like this: so-called question operators, which I mark here as $Q_{wh}$. In some languages, these are spelled out as an independent morpheme, usually at the periphery of the clause. Japanese –\textit{ka} or Mandarin Chinese –\textit{ne} are such elements:
One important role of the Q$_{wh}$ element according to Cheng (1991) is to "type" the clause as a question, i.e. to mark the clause interrogative to distinguish it from indicative or imperative clauses. Beside the typing role, this element has another role as well: it provides the clause with question interpretation (for a detailed account on the semantics of such a proposal, see Hagstrom 1998) and by being quantificational it also functions as a binder of $wh$-items in a question. In languages where no overt Q$_{wh}$ element is present in questions, a covert variant thereof can be hypothesized. This covert Q$_{wh}$ element can be taken to bind $wh$-items similarly to the overt question morphemes in Japanese or Chinese. About the position of covert Q$_{wh}$, however, we cannot be so sure as about the position of overt Q$_{wh}$. It can be the case that covert Q$_{wh}$ is base generated in the same position where overt Q$_{wh}$ appears, but it can also be that covert Q$_{wh}$ starts out lower and raises to C^0 in the course of the derivation.\textsuperscript{18} The choice between these options should be argued for on the basis of syntactic evidence in languages. For Japanese, it has been argued that the Q$_{wh}$ operator is base generated together with the $wh$-item and raised to Spec,CP at S-structure (Watanabe 1992).

We have seen in this section that Japanese $wh$-items are variables. This property was summed up in (90). The question arises whether we can state (90) about similar languages as well. The null hypothesis would be to claim that (90) is valid in all languages. Rather than trying to prove this point, the scope of my investigation is smaller. In the next section I will show that Hungarian is like Japanese in the relevant respect: $wh$-items behave as variables in the syntax. (90) therefore is also a valid generalization for Hungarian.

5.1.2. $Wh$-items in Hungarian

Hungarian $wh$-items are similar to Japanese $wh$-items as far as morphological affixation is concerned. Bare $wh$-items form base of quantificational paradigms as shown in (93):\textsuperscript{19}

\textsuperscript{18}Note by the way that overt Q$_{wh}$ is also taken to undergo movement in overt syntax according to Hagstrom (1998).

\textsuperscript{19}The paradigm is incomplete in the case of minden-; *mindenmi 'everything' does not exist. It would stand to reason that this is because minden itself is a composite element and contains mi already: $mi+nd+en$. 

(91) Dare-ga ki-masu-ka [Japanese] (=88)
who-NOM N-come-Q$_{wh}$
‘Who is coming?'

(92) hufei mai-le na-yi-ben-shu (ne)
Hufei-NOM buy-ASP which-one-CLA-book Q$_{wh}$
‘Which book did Hufei buy?’
Following a similar argumentation as for Japanese above, which resulted in the null hypothesis in (90), Hungarian \textit{wh}-items can also be said to be variables, in need of a binder: just as in Japanese, we see that the \textit{wh}-items are constant ingredients of the quantificational items in (93). They are affixed with \textit{minden-}, \textit{vala-}, which are the elements that determine the universal/existential meaning of the resulting complex. On the basis of this it can be argued that \textit{minden-} and \textit{vala-} serve as binders, which can be claimed to operate at the word-level:

\begin{equation}
\text{(94) } [\text{Op}_{\frac{3}{2}} \text{[wh]}]
\end{equation}

The null assumption on the basis of the paradigm in (93) is that Hungarian \textit{wh}-items lack any quantificational force in themselves; they are inherent variables that need to be bound in the syntax. This is summed up in (95):

\begin{equation}
\text{(95) } \text{\textit{Wh}-items are variables in all their occurrences in Hungarian.}
\end{equation}

Although (95) has not been proposed in the generative framework yet, the idea that \textit{wh}-items have a variable meaning and behave like indefinites was pointed out by traditional grammarians tangentially. It was noted by Budenz (1905) specifically about Hungarian and by Beke (1913-1914) about Finno-Ugric languages that beside their interrogative use, \textit{wh}-items can also be used as indefinites. To support this claim, Budenz refers to the paradigm in (93) and to the existence of a construction in which we find bare \textit{wh}-items, but crucially not with an interrogative interpretation. This is the construction that I will discuss under the name \textit{multiple partitive} construction in the following section and in Chapter 4. Beside these, Beke (1913-1914) also mentions the construction that contains a \textit{wh}-item that I term “etcetera” \textit{wh}-item below (section 5.1.2.2), and the occurrence of \textit{wh}-items with an existential meaning in conditionals. In the next sections I review these constructions together with another construction in which \textit{wh}-items are found with an indefinite meaning.
5.1.2.1. *Wh*-items in present-day Hungarian

Bare *wh*-items in present-day Hungarian can occur in the following contexts:

(i) interrogative clauses
(ii) exclamative clauses
(iii) infinitive clauses with a matrix existential predicate
(iv) multiple partitive constructions

From these four environments, the contexts which clearly point to the indefinite use of *wh*-items are (iii) and (iv). Both are productive patterns that can occur with a large variety of *wh*-items. Therefore it is useful to start with the discussion of these constructions, returning to the interrogative and exclamative clauses later.

Infinitival clauses can host bare *wh*-items if they are embedded under the existential verb *van* 'be'.

This is illustrated in (96):

(96) a. Van kivel beszélni.
   is who-INS talk-INF
   'There is someone/there are people to talk to.'

b. Van mit enni.
   is what-ACC eat-INF
   'There is something/are things to eat.'

c. Van hol aludni.
   is where sleep-INF
   'There is some place to sleep.'

As the translations reveal, the *wh*-items in each sentence have an indefinite interpretation. The indefinite reading associated with bare *wh*-items is a necessarily weak one: the *wh*-item cannot be taken to refer to a specific individual in the context. In this respect, the *wh*-items in (96) differ from *vala*-affixed indefinite elements, which can have a specific indefinite interpretation:

---

20Beside these four contexts, bare *wh*-items can also be found in one type of multiple relative clause constructions, exemplified here in (i):

(i) Ki mit kér, elveheti.
   who-NOM what-ACC want-3SG PV-take-POT-3SG
   'Everyone can take what he wants.'

I do not discuss the properties of *wh*-items in these constructions, because it is by far not clear how these differ from ordinary multiple relative clause constructions, in which we find *a*-affixed relative pronouns throughout. The interested reader is referred to Lipták (2000) for a more detailed exposition and analysis of multiple relative constructions.

21In some dialects/idioms, subjunctive clauses can also be used instead of the infinitival ones, with the same meaning:

(i) Van kivel beszéljek.
   is who-INS talk-SUBJ-1SG
   'There is someone/there are people for me to talk to.'

Note also that this type of construction also seems to exist with another matrix verb, *tud* 'be able to':

(ii) Tudok kivel beszélni.
    can-1SG who-INS talk-INF
    'There is someone/there are people to talk to.'
The other difference between the indefinite interpretation of bare wh-items and vala-affixed wh-items is that bare wh-items in (96) need not refer to one individual only, they can refer to more than one. That is, while these items are syntactically singular, they can have plural reference. Valaki'someone’ on the other hand can never be interpreted with reference to more than one individual.

Due to these differences, bare wh-items and vala-affixed wh-items are not interchangeable in contexts like (97). Valaki cannot even appear in the construction to begin with; the construction is ungrammatical with any other indefinite but a bare wh-item:

    is someone-INS talk-INF
    intended: ‘There is someone to talk to.’

b. *Van egy férfival beszélni.
    is a man-INS talk-INF
    intended: ‘There is a man to talk to.’

So far we have seen that the indefinite interpretation of bare wh-items differs from vala-affixed wh-items in Hungarian. This suggests that the licensing of wh-items happens in different ways in the two cases. In the case of valaki, binding of the wh-item is done by the word-level binder vala- affix. In the case of the bare wh-items in (96), we do not find any overt affix present. What supplies these items with an existential reading then? From the fact that this construction is only fine with an existential matrix verb, we have to conclude that the existential reading of the wh-items originate from the matrix existential predicate van ‘be’. The existential component in this verb (marked as 3) is responsible for licensing the wh-items in the infinitival: this is the quantificational element that binds the wh-items in the infinitive as an unselective binder.22

---

22One might ask the question why it is only verbs with an existential component that license bare wh-items in infinitival clauses. In some languages wh-items are also possible with an existential interpretation when there is no overt existential verb binding them. In these cases, the existential reading is argued to originate from existential closure. This procedure applies freely at the VP level in finite clauses for example, and as an unselective binder it captures all unbound variables in VP, but not outside VP. (Heim 1982, Diesing (1992). Consider the following Dutch examples (Postma 1994):

(i) a. Ik heb wat opgeschreven.
    I have what-ACC PV-written
    ‘I have written something.’

b. *Wat is hier.
    what-NOM is here
    ‘Something is here.’

In Hungarian examples like (ia) are ungrammatical. The reason for this should not be sought in the lack of existential closure, because bare wh-items with an indefinite reading are systematically excluded in finite clauses, regardless of their position:
The other context in which we find bare *wh*-items with an indefinite construal is the so-called *multiple partitive* construction (Haspelmath 1997). This involves paired (or n-ary) occurrences of *wh*-items in indicative clauses with a parallel structure:

\[(100)\]

a. Ki a bolta ment, ki a piacra.
   who-NOM the shop-ILL went-3SG who-NOM the market-SUB
   ‘Some people went to the shop, some (the others) to the market.’

b. Hol Péter főz, hol Mari.
   where Péter-NOM cook-3SG where Mari-NOM
   ‘Some of the times Péter cooks, the other times Mari.’

The interpretation of (100) shows that the *wh*-items do not construe with an interrogative meaning, rather they can only be construed with an indefinite interpretation. Note that here again the bare *wh*-items are not interchangeable with *vala*-affixed *wh*-indefinites, without a change in meaning. While in (99) the reference of the *wh*-items can be plural and non-specific, the reference of *valaki* in (101) is singular and can be either non-specific or specific.

\[(101)\]

Valaki a bolta ment, valaki a piacra.
   someone-NOM the shop-ILL went-3SG someone-NOM the market-SUB
   ‘There was someone who went to the shop, and there was someone who went to the market.’
   ‘A specific person went to a shop, and another specific person went to the market.’

Since there is no overt element that would account for the indefinite interpretation of the bare *wh*-items in (100), the questions is, why do these items construe with this interpretation and with no other possible interpretation? To understand how this comes about, we first have to notice a peculiarity of the construction. (100) can only be used in Hungarian in contexts where the *wh*-items exhaust the set of individuals that are present in the discourse. (100a) for example is used to describe a set of people already introduced to the discourse before. It must exhaust this discourse set in the sense that it must be the case that all the people in this set either go to the shop or to the market. It cannot be the case that some people go to a third place or do not go anywhere. The meaning of the sentence can be reflected by the following logical

   Péter-NOM wrote-3SG what-ACC

b. *Péter mit irt.
   Péter-NOM what-ACC wrote-3SG

c. *Mit Péter irt.
   what-ACC Péter-NOM wrote-3SG
   ‘Péter wrote something.’
paraphrase:

(102) Everyone was such that either he went to the shop or he went to the market.

On the basis of this semantic paraphrase and other syntactic evidence I propose that the sentences in (100) actually contain the same underlying structure as (102) with the difference that instead of the universal quantifier *everyone* we find a covert universal *every* operator scoping over disjoined clauses. In the disjoined clauses we find *wh*-items instead of the bound pronominal *he* in (102):

(103) ∀ [[*wh* VP] or [/*wh* VP]]

The universal quantifier acts as an unselective binder for the *wh*-items in each clause. This licenses the *wh*-items and provides them with an existential meaning. The latter is the result of the fact that the clauses are disjoined. A detailed analysis of the structures in (100) will be given in Chapter 4 below.

The availability of the infinitival construction (cf. 96) and the multiple partitive construction (cf. 100) in Hungarian clearly shows that *wh*-items do not have an inherent interrogative reading in this language, but they can also be construed with an indefinite meaning. This can be coded in the grammar of the language in two ways. One option would be to say that there are two different lexical *wh*-items in the Hungarian lexicon: one with an interrogative meaning, and one with an indefinite meaning. Interrogative sentences contain the former, while (96) and (100) contain the latter. The other option would be to say that *wh*-items are always stored in the lexicon without any inherent quantificational meaning on their own, i.e. as *variables*, and their interpretation is determined by the context they occur in.

In this dissertation I put forward the claim that the latter option is true. This view is certainly the null hypothesis: it simplifies the lexicon in that all occurrences of *wh*-items correspond to just one item. This view is also consonant with findings about other languages (see the discussion of Chinese and Japanese above), and, as it will be shown in Chapter 3, it is helps to accommodate the behaviour of Type I multiple questions in Hungarian. In these constructions we find *wh*-items that construe with a third type of interpretation: that of universal quantifiers. If we were to account for this property by listing yet another type of *wh*-item in the lexicon, we would loose explanatory adequacy. By assuming that there is just one type of *wh*-item, which is without inherent quantificational force, the lexicon can be kept simple.

After establishing that *wh*-items are variables that are bound by quantificational elements, the following question presents itself: what kind of quantificational binder do we find in interrogative clauses and exclamative clauses? Both environments can contain *wh*-items:

(104) Kit hívtál meg? [question]  
who-ACC invited-2SG PV  
‘Who did you invite?’
I assume that in their use as question words and exclamative phrases, *wh*-items are also bound by an operator that characterizes questions or exclamations. For questions, this operator (marked as $Q_{\text{wh}}$) is an interrogative question operator, whose role in providing interrogative meaning to the clause it occurs in has been acknowledged starting from Baker (1970) and whose presence has been argued for on the basis of morphological evidence in some languages (see previous section). The same holds for exlamatives, where we find a quantificational element (marked as $Q_{\text{ex}}$) that provides the clause with exclamative force (Bennis 1998). Since these operators do not have visible phonological realization in Hungarian, it is hard to know which position they occupy. To parallel the nature of *minden-* and *vala-* affixed quantifiers (93 above) I take it to be the case that these operators are word-level binders of the *wh*-items as well, in the following fashion:

\[(106) \ [Q_{\text{wh/ex}} \ [\text{wh}]]\]

Chapter 2 of this dissertation is devoted to argue that the analysis in terms of (106) is advantageous for the treatment of interrogative clauses in Hungarian. It will be shown that the presence of the quantificational $Q_{\text{wh}}$ operator is also responsible for providing the *wh*-items with $<+\text{wh}>$ and $<+f>$ features, which are active in the syntax.

The analysis of *wh*-items as variables therefore has a solid empirical foundation in Hungarian. This section has shown that various constructions contain *wh*-items whose interpretation is context-dependent. These constructions are summarized in Table 3:

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23 The exact nature of these operators is not of concern us here. They can be conceived of as illocutionary operators that distinguish indicative clauses from other types (interrogative, exclamative and imperative).
Table 3. The occurrence of \textit{wh}-items in present-day Hungarian

<table>
<thead>
<tr>
<th>TYPE OF CONSTRUCTION</th>
<th>EXAMPLE</th>
<th>BINDER</th>
<th>SEE</th>
</tr>
</thead>
<tbody>
<tr>
<td>affixed \textit{wh}-item</td>
<td>vala-ki some-who minden-ki every-who</td>
<td>word-level $\exists$ and $\forall$ operator</td>
<td>(93) above</td>
</tr>
<tr>
<td>\textit{wh}-item in questions</td>
<td>Kit láttál? who-ACC saw-2SG</td>
<td>word-level $Q_{wh}$ operator</td>
<td>Chapter 2, 3</td>
</tr>
<tr>
<td>\textit{wh}-item in existential sentences with infinitivals</td>
<td>Van kivel beszélni. is who-INS talk-INF</td>
<td>$\exists$ present in existential predicate</td>
<td>(96) above</td>
</tr>
<tr>
<td>\textit{wh}-item in multiple partitives</td>
<td>Ki a boltba ment, who-NOM the shop-ILL went-3SG who-NOM the market-SUB</td>
<td>$\forall$ scoping over clausal disjunction</td>
<td>(100) above; Chapter 4</td>
</tr>
</tbody>
</table>

5.1.2.2. \textit{Wh}-items at previous stages of Hungarian

Beside the constructions summarized in Table 3 above, bare \textit{wh}-items could occur in two other contexts at earlier stages of Hungarian, with an existential meaning. These contexts were:

(i) conditional clauses
(ii) clauses with regular indefinites

Their occurrence in conditional \textit{ha} ‘if’ clauses, and less frequently, in conditional purpose clauses is exemplified below (quoted from Beke 1913-1914). Note that this construction is completely missing from present-day Hungarian; speakers do not have judgements about it.

(107) a. Ha ki szomjuzik, jőjjön énhozzám. if who-NOM thirsty-is come-IMP ALL-1SG ‘If someone is thirsty, he should come to me.’

b. Mert ha hibáz miben, hozzá vetik a latot. because if fail-3SG what-INe SUB-3SG throw-3PL the weight-ACC ‘Because if he makes a mistake in something, they scorn him.’

c. Addig Zrínyi Miklós vigyázásban vala, till then Z. M.-NOM guarding-INe was hogy mi családságot török ne indítna. that what trick-ACC Turks-NOM not start-COND ‘Till then Miklós Zrínyi was guarding so that the Turks not start some trick.’
Wh-items with an indefinite meaning in conditionals are well known from other languages as well. The following illustrates the same phenomenon from Latin (Postma 1995) and Chinese (Li 1992):

\[(108)\]

a. Si quis hoc dicit, errat. [Latin]
   if who-NOM this-ACC says err-3SG
   ‘If someone says this, he is mistaken.’

b. Yaoshi/Ruguo ta xihuan shenme [Chinese]
   if he-NOM like what-ACC
   ‘If he likes anything...’

The binder in these cases is an operator that is claimed to be present with conditionals. It is argued by Heim (1982) and Kratzer (1986) that conditionals always restrict an operator that acts as unselective binder for variables:

\[(109)\] Op, [ ha ki, szomjúhozik ] ...

The other environment in which wh-items occur is demonstrated in (110) below (Beke 1913-1914). This construction is not part of standard Hungarian any more\(^{24}\), but can be heard in substandard Hungarian:

\[(110)\]

a. Egy kis almát mit összeszedtem neki.
   a little apple-ACC what-ACC gathered-1SG DAT-3SG
   ‘I gathered some apples and other such stuff for him.’

b. Mikor mennéd yásárba hova, benézek egy kicsit a kocsmába is.
   when go-1SG market-SUB where look-1SG a bit the pub-ILL as well
   ‘When I go to the market and such places, I pop into the pub as well.’

This construction, in which we find wh-items with an “etcetera” reading is not discussed in the syntactic literature to my knowledge. It is available in other languages, like in Chinese (Dylan Tsai, p.c.):

\[(111)\]

wo dai-le dian shui gno sheme de gei ni [Chinese]
   I-NOM bring-PRF some fruit-ACC what-ACC DE to you
   ‘I have brought you fruit or something.’

Both in the Hungarian (110) and the Chinese (111) the wh-item is parasitic on an indefinite element that serves as its syntactic and semantic host. That the indefinite is a syntactic host is visible from the fact that it must be left-adjacent to the wh-item:

---

\(^{24}\)With the exception of set phrases like the following lexicalized expression:

(i) félig-meddig
   half-TER—what-TER
   ‘to some extent’
(112) *Egy kis almát tegnap mit összeszedtem neki.
a little apple-ACC yesterday what-ACC gathered-1SG DAT-3SG

For this reason I treat the string egy kis almát mit ‘some apples what’ as a constituent: the wh-item appositively modifies the indefinite. This is reflected in the fact that they both show up with the same case.²⁵

The indefinite also serves as a semantic host, seen from the fact that it is crucial that it is indefinite: it cannot be replaced with a definite DP for example. The following example illustrates this:

(113) *??A kalapomat mit odaadtam neki.
the hat-poss.1SG-ACC what-ACC gave-1SG DAT-3SG
‘I gave him my hat and other things.’

The necessary indefinite nature of the hosting element must have a semantic explanation. In order to see what it can be, let us first see what the logical representation of a sentence with an indefinite is:

(114) a. Néhány/egy kis almát összeszedtem.
    few/a little apple-ACC gathered-1SG
    ‘I gathered some apples.’
  b. ∃x (x=apple) [gathered(x, I)]

The quantifier néhány/egy kis ‘some’ has ‘apples’ in its restriction. When mit ‘what’ is present as well, following the noun phrase, néhány/egy kis ‘some’ quantifies over possible other things as well, which necessarily have to be sufficiently similar to apples. The logical representation in this case will be the following:

(115) a. Néhány/egy kis almát mit összeszedtem.
    few/a little apple-ACC what-ACC gathered-1SG
    ‘I gathered some apples and other such stuff.’
  b. ∃x,y (x=apple, y=similar to x) [gathered((x,y), I)]

That is, the wh-item brings in an extra variable in the structure, and this variable takes on the restriction of the indefinite item, in a parasitic way. The wh-item moreover is parasitic with respect to the binder, too: it is bound by the same existential quantifier that binds the indefinite expression as well.

The two constructions reviewed in this section demonstrate that wh-items showed the behaviour of variables at earlier stages of Hungarian as well. I do not in further detail deal with these constructions, nor do I attempt to explain why the

²⁵Case agreement is a general property of appositive modification in Hungarian. Consider the following appositive structure:

(i) Vettem csizmát, pirosat.
bought-1SG boot-ACC red-ACC
‘I bought boots, red ones.’
patterns discussed here seized to exist in present-day Hungarian, since this work is not diachronically oriented in nature.
The syntax of *wh*-movement in Hungarian

1. *Wh*-movement in the literature

Constituent question formation is discussed in a sizeable generative syntactic literature on languages like English, where *wh*-items move to Spec,CP in overt syntax (Baker 1970, Chomsky 1977, Kuno and Robinson 1972), or languages like Chinese and Japanese, where *wh*-items remain in situ (Huang 1982, Nishigauchi 1990, Cheng 1991, Watanabe 1992, Hagstrom 1998). A third type of languages, including Hungarian, is one where *wh*-items move overtly in questions, but not all the way to Spec,CP. In these languages *wh*-items usually occupy the same overt position as focused constituents. Therefore, the syntax of *wh*-items largely overlaps with the syntax of focus. In order to understand the analysis of *wh*-movement in one of these languages, Hungarian, we first have to see how focus is analyzed. Therefore I will start out by reviewing the similarities between *wh*-items and focused constituents (section 1.1), and the analysis of focus (section 1.2.1) before turning to the analysis of *wh*-movement itself (section 1.2.2).

1.1. Similarities between *wh*-items and focus

1.1.1. Surface syntactic similarities

*Wh*-items in questions and (mostly exclusively) focused items share similarities in their overt syntax in a number of languages. First of all, there is a set of languages where focus and *wh*-items occupy the same ex situ position (see section 1.1.1.1); another set of languages employ the same *marker* for focus and *wh*-items (section 1.1.1.2). Beside these empirical correspondences, there are other parallels as well (section 1.1.2), involving phonological, semantic and syntactic properties. *Wh*-movement and focusing behave similarly with respect to the nature of their syntactic chain, too: they both undergo A-bar movement. I will return to this property in section 1.2.2 below.

1.1.1.1. Position in Hungarian-type languages

The same ex situ position is occupied by both *wh*-items and focus in root clauses in the following languages:

- clause initial position: Greek (Tsimpli 1995), Finnish (Vainikka 1989, Vilkuna 1989) and Russian (King 1993)
- preverbal position: Basque (Ortiz de Urbina 1989), Bengali (Bhattacharya &
Simpson to appear), Catalan (Quer 2000), Hungarian (Horvath 1986, É. Kiss 1987), Italian (Rizzi 1995), Kashmiri (Bhatt & Yoon 1992), Mayan languages (Aissen 1992)

- postverbal position: Aghem (Watters 1979), Chadic languages (Tuller 1992)
- clause final position: Tangale and Ngizim (Tuller 1992)

As we can see here, focused items patterning together with *wh*-items in overt syntax is a well-attested phenomenon across the languages of the world.

For Hungarian, research has established that in root clauses *wh*-items occupy the same overt position as exclusive focus. In root clauses a single *wh*-item and a single exclusive focus constituent are found left-adjacent to the verb and are in complementary distribution:

(1) a. PÉTERT hívtam meg. (exclusive focus)
   Péter-ACC invited-1SG PV
   ‘It was Péter whom I invited.’

b. Kit hívtál meg?
   who-ACC invited-2SG PV
   ‘Who did you invite?’

c. *PÉTERTki hívta meg?
   Péter-ACC who-NOM invite-3SG PV
   ‘Who invited PÉTER?’

d. *Ki PÉTERT hívta meg?
   who-NOM Péter-ACC invite-3SG PV
   ‘idem’

The position *wh*-items and exclusive focus occupy is a distinct position in the quantificational layer of the Hungarian clause structure (Horvath 1981, Kenesei 1986, É. Kiss 1979, 1981, 1987). The exact projection which hosts *wh*-items and exclusive focus has been debated — it was argued to be V⁰ (Horvath 1986), VP (É. Kiss 1987, 1992a), CP (Marácz 1989), TP (Kenesei 1992b). Since Brody (1990a,b), it has been accepted to refer to it as a distinct functional projection, that of focus: FocP, whose specifier hosts exclusive focus constituents and *wh*-phrases, and whose head is filled by the verb (but not the preverb) if Spec,FocP is filled. FocP is dominated by a set of other projections, among which the most important ones are those of distributive quantifiers, topics and the complementizer projection. For more on these, see Chapter 1.

(2) [CP [TopP* [DistP* [FocP focus/*wh ... [VP ]] ] ]]

When Spec,FocP is filled in overt syntax, the Hungarian verb (or predicate adjective) must raise to the Foc⁰ head in overt syntax as well. Verb raising to F⁰ has the fine structure in (3). If the verb has a preverbal modifier (PV for short), that modifier is stranded in a position lower than FocP (see Chapter 1). Preverb stranding
in a postverbal position is therefore indicative of Spec,FocP being filled.

(3) \([\text{FocP focus/wh} \quad [\text{Foc} \ V \ \ldots \ [\text{Asp} \ P \ [\text{Asp'} \ \ldots \ [\text{VP \ ti}]])\])

In section 1.2.1 and 1.2.2 I will return to a more detailed explication of the syntax of focus and wh-items in Hungarian, as found in the available literature.

1.1.1.2. Focus and wh-markers
In a number of languages, as in Tuki (Biloa 1997), Kikuyu (Clements 1984), Bahasa Indonesia (Saddy 1991), Gun and Classical Arabic (Haegeman 1995), instead of or beside overt movement we find syntactic focus markers appearing with focus and wh-items. The markers are the same morphemes in both cases. I illustrate this phenomenon by Tuki (or A60 Sanga, a Bantu language).

In Tuki, both exclusive focus and wh-items front into a sentence initial position. In (4), the lexical focus must be obligatorily followed by an overt focus marker, which agrees with the noun class of the focused item:

(4) yendze aye Abongo a-ma-kos-en a agee waa idzo [Tuki]
    house FOC Abongo SM-P2-buy-APPL wife his yesterday
    ‘It is a house that Abongo bought his wife yesterday.’

Biloa (1997) argues that the focus marker aye is the morphological spellout of the functional head that projects a focus phrase. It enters into a spec-head agreement relation with the item in the specifier position of FocP.

Focus marking of this type constitutes empirical evidence for the existence of focus projections: it shows that FocP is not just a theoretical construct, and that languages show parametric variation as to whether and how they lexicalize the Foc0 head (with verb raising or lexical base generation of a marker morpheme).

Wh-items move to the same sentence initial position as exclusive focus in Tuki, and can be followed by the same focus marker as lexical foci:

(5) ate (aye) Puta a-ma-namba?
    what FOC Puta SM-P2-cook
    ‘What did Puta cook?’

This argues for the same status of focus and wh-phrases as far as morphological marking is concerned, although with wh-phrases the focus marker is optional, while with focus it is obligatory.

1.1.2. Other similarities
The overt similarity between exclusive focus and wh-movement in Hungarian is usually explained with reference to the fact that wh-items are an instance of focus or a subcase of it (Horvath 1986, É. Kiss 1987, Brody 1990a,b). This statement can also be found in works on other languages (Gunter 1966, Chomsky 1977,
As Rochemont and Culicover state it: “wh-words function naturally as focus constituents”. Evidence for this comes from their phonology, their semantics and from their syntax as well.

1.1.2.1. Phonological similarities
The claim that wh-items are an instance of exclusive focus is supported by phonological facts in some languages. Just as focus has to be phonologically marked by primary stress, wh-items also carry primary stress in languages like Hungarian.1

(6) a. 'PÉTERT hívtam meg. \\
    Péter-ACC invited-1SG PV ‘It was Péter whom I invited.’

   b. 'Kit hívtál meg? \\
    who-ACC invited-2SG PV ‘Who did you invite?’

1.1.2.2. Semantic similarities
One property that unites focus and wh-items is that they both represent the non-presupposed part of the sentence they occur in. The two therefore seem to have the same property in presuppositionality: wh-items and exclusive focus are used in sentences that have the same existential presupposition. Jackendoff (1972) already considered the claim that the non-focused part of a sentence denotes a “focal presupposition”. Such a presupposition is arrived at if the variable in the base generated position of the focus is existentially bound (7):

(7) a. It is Peter whom you invited.

   b. $\exists x$ (you invited x) (existential presupposition of 7a)

The effect of focal presupposition on the interpretation of sentences is detectable from the following pair of sentences (Chomsky 1971):

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1Note that wh-items do not always pattern together with focus in some languages as far as phonological properties go. This has long been realized in the literature on focus in English (Gunter 1966, Rochemont 1978). The following illustrative example from English shows that wh-items do not possess primary stress (Culicover and Rochemont 1983) (‘ marks stress):

(i) A. I finally went out and bought something today.
    B. What did you 'buy?

In the question (iB), which reacts to the statement in (iA), primary stress falls on the last element of the clause, the verb. The wh-phrase bears secondary stress only. The verb itself cannot be said to be focused in (iB) — it is not new information, since (iA) already contained it. Culicover and Rochemont (1983) took facts like (i) to show that there is no link between stress assignment and focus interpretation at all. They argue that stress assignment to the verb in (iA) is similar to cases like (ii), where the rightmost lexical category doorstep is assigned stress as a result of the nuclear stress rule that assigns stress to the most embedded constituent. For a recent take on this, see also Cinque (1993).

(ii) There appeared at her ‘doorstep a man she had not seen in ‘years.
(8) a. Sasha visited THE EIFFEL TOWER yesterday.
   b. Sasha visited the Eiffel tower YESTERDAY.

(8a) presupposes that Sasha visited a site yesterday, and identifies that site as the Eiffel tower, while (8b) does not presuppose this, rather it presupposes that Sasha visited the Eiffel tower sometime, and identifies the time as yesterday. The meaning difference must be due to the presence of focus on different elements, since otherwise the sentences are completely the same.

Existential presupposition is also present in questions, according to Belnap and Steel (1976). They define presuppositions behind a given question as everything that as a matter of logic has to be true for there to be a true answer to the question. Therefore, a question like (9a) can only be answered by providing an individual if there is an individual who was invited:

(9) a. Who did you invite?
   b. ∃x (you invited x)  (existential presupposition of 9a)

Presuppositions, on the other hand, can be wrong in the case of questions. Thus, it is possible that (9a) gets an answer ‘Noone’. This answer is not a true answer in Belnap and Steel’s theory, instead, it functions as the denial of the presupposition behind the question.

Another parallel between focus (both exclusive and information focus) and wh-items has been pointed out long ago by Paul (1880), who notes that focus can be determined by wh-questions, and therefore it corresponds to them. The intuition behind this claim is that questions get answered by sentences that contain focus.

This is so in all languages if we leave the interpretation of focus open: answers to questions always contain new information, which is by definition an instance of information focus. This is the case with VP-questions of the form What did he do? These get answered by a clause containing information focus. In Hungarian, this is in situ focus. The answer therefore can take neutral word order:

(10) Q: Mit csinált Péter tegnapi?
      what-ACC did-3SG Péter-NOM yesterday
      ‘What did Péter do yesterday?’
A: Vett egy könyvet.
      bought-3SG a book-ACC
      ‘He bought a book.’

(10A) has information focus on the VP — it is claimed that it was true about Péter that he bought a book, beside doing several other things like sleeping, eating, swimming, etc.

Non-VP-constituent questions, however, behave differently from VP-questions in languages that syntactically differentiate between exclusive and information focus. In these languages, wh-constituent questions always correspond to an answer that
contains exclusive focus in the position of the *wh*-item. This can be shown by the following Hungarian examples:

(11) Q: Mit vett Péter?
   what-ACC bought-3SG Péter-NOM
   ‘What did Péter buy?’
   A. a. EGY KÖNYVET (vett).
      a book-ACC bought-3SG
      ‘It was a book that he bought.’
      b. *Vett egy könyvet.
      bought-3SG a book-ACC

As (11A) shows, an answer to a constituent question has to contain a phrase corresponding to the *wh*-variable in the distinct focal slot of Hungarian.\(^2\) The interpretation of (11A) is necessarily exclusive: Péter could not have bought anything else but a book, or otherwise (11A) is not truthful. This is shown by the fact that if, for example, Péter bought many things, but we only mention one of these, we have to indicate this in the answer somehow:

(12) Egy könyvet vett például.
    a book-ACC bought-3SG for example
    ‘He bought a book for example.’

\(^2\)In other words, the following pair of sentences sounds unnatural:

(i) Q: Hova tettel könyvet?
   where put-PAST-2SG book-ACC
   ‘Where did you put books?’
   A: Tettem könyvet a polcra.
      put-PAST-1SG book-ACC the shelf-SUB
      ‘I put books on the shelf.’

(iA) as an answer to (iQ) sounds very unnatural to the native ear, unless it is introducing a list, without an overt coordinator among the listed items. In this case, if it is continued by many other places mentioned, it is fine:

(ii) a. Tettem könyvet a polcra, az asztalra, a fiókba...
    put-PAST-1SG book-ACC the shelf-SUB, the table-SUB, the drawer-ILL
    ‘I put books on the shelf, on the table, in the drawer...’

    b. ??Tettem könyvet a polcra, az asztalra és a fiókba.
    put-PAST-1SG book-ACC the shelf-SUB, the table-SUB and the drawer-ILL

The possibility of answers with postverbal listing is exceptional: without listing, (iA) can be taken to be ungrammatical. I take it that this is possible because only lists can escape the otherwise obligatory focusing requirement. Lists (i.e. phrases without coordinators) are known to be unable to appear in FocP, as shown by Bárány (1992, ex.33):

(iii) a. *Csak az angolra, a franciára, a németre, az oroszra írták meg a fonológiait.
    only the English-SUB the French-SUB the German-SUB the Russian-SUB wrote-3PL PV the phonology-ACC

    b. Csak az angolra, a franciára, a németre és az oroszra írták meg a fonológiait.
    only the English-SUB the French-SUB the German-SUB and the Russian-SUB wrote-3PL PV the phonology-ACC
    ‘They wrote a phonology only for English, French, German and Russian.’
Adding *pédául* ‘for example’ to the sentence indicates that we are not spelling out all the things that Péter bought. Without *pédául*, the sentence can only be taken to mean that Péter bought only a book, and has to involve primary stress on the preverbal element in (12).

These examples demonstrate that there is a real link between *wh*-items in constituent questions and exclusive focus in an answer to them. This means that *wh*-items do indeed correspond to exclusive focus. The property that characterizes both *wh*-items and exclusive focus is their exhaustivity. *Wh*-items require an exhaustive listing in the answer to them, therefore they get answered by exclusive focus, which is by definition exhaustive.

Note that the exhaustivity requirement of a constituent question can be lifted in certain contexts. These, however, count as an exception, since they are dependent on the situation. Austin (1953) has shown that in many cases context does not require an exhaustive answer to a question. Consider for example the following question:

(13) Ki nyert olimpiai aranyérmet 1980-ban?
who-NOM won-3SG olimpics gold medal-ACC 1980-INE
‘Who won a gold medal in the 1980 olimpics?’

If (13) is asked by someone who is doing a crossword puzzle at the time of asking, an answer providing only one name is sufficient, although this does not specify an exhaustive list of champions. This way of providing an answer, however, is only licensed by an exceptional context, and therefore constitutes the exception rather than the rule.

1.1.2.3. Further syntactic similarities

Beside the above phonological and semantic parallels, and the surface syntactic parallels mentioned in section 1.1.1, one can find other syntactic parallels between *wh*-items and focus.

In the languages I know of, it is the case that certain elements like appositional modifiers or evaluative, speaker-oriented adverbs cannot be questioned. Note the following illustrative examples. The (a) sentences show a neutral clause, the (b) ones a clause with a *wh*-item:

(14) a. Az okos Péter tudja a választ.
the clever Péter-NOM know-3SG the answer-ACC
‘The clever Péter knows the answer.’

b. *A milyen Péter tudja a választ?*
the what-kind Péter-NOM know-3SG the answer-ACC
intended: ‘Péter, who is what kind, knows the answer?’

(15) a. Péter okosan bezárta az ajtót.
Péter-NOM cleverly locked-3SG the door-ACC
‘Cleverly, Péter locked the door.’
It is remarkable that appositive modifiers and evaluative speaker-oriented adverbs share another common property as well: they cannot be contrastively focused, as the following examples show:

(16) Az OKOS Pitér tudja a választ.
    the clever Pitér know-3SG the answer-ACC
    ‘The Péter who is CLEVER (not the one who is stupid) knows the answer.’
    ‘*The CLEVER (not stupid) Péter knows the answer.’
(17) Pitér OKOSAN zárta be az ajót.
    the clever Pitér-NoM cleverly locked-3SG PV the door-ACC
    ‘*It was clever of him (not stupid) that Pitér closed the door.’

As the translations in (16) show, a prenominal modifier, when focused, cannot be understood appositively, it can only be understood with restrictive interpretation. Similarly, (17) shows that a focused adverb cannot be understood as an evaluative speaker-oriented adverb.

These examples show that wh-items are systematically excluded from the functions where contrastive focus is also excluded. This must have a semantic explanation, which I relegate to future research; for now I take these facts to show that constituent questions and contrastive focus are underlingly similar.

1.2. The syntactic analysis of wh-movement in Hungarian

After seeing that Hungarian is one of the languages where exclusive focus and wh-items pattern together in the syntax, let us see how this was accommodated in the literature. In order to discuss how wh-movement was analyzed, we first have to review the analysis of focus, on which the analysis of wh-movement rests.

1.2.1. The syntactic analysis of focus
1.2.1.1. Pre-minimalist analyses
One of the first mentions of exclusive focus in Hungarian, É. Kiss (1979), described exclusive focus movement as movement to an operator position from where the moved focus element takes scope. This, however, could not explain why exclusive focus has a fixed structural position, and has to be immediately followed by the verb. Lexical quantifiers do not have these requirements (see section 3 in Chapter 1). In order to explain why exclusive focus moves to a fixed structural position, later analyses posited a feature that is assigned in this position. The postulation of a FOCUS feature appeared as early as in Horvath (1981, 1986), and later in É. Kiss
According to these analyses, exclusive focus items need a FOCUS feature. This feature is assigned to the focused item in FocP by the lexical verb under government (with a necessary m-command definition of government). Therefore, focused items must move to Spec,FocP. This in turn explains why the verb must move to be immediately adjacent to the focused element: it is the verb that assigns the FOCUS feature under m-command.

Thus positing a FOCUS feature could explain:

(i) ordering restrictions (focus following CP, TopP, DistP, and preceding other material)

(ii) verb movement up to right next to the focus

The postulation of a FOCUS feature as such was not specific to Hungarian. It was Jackendoff (1972) that first made use of a "syntactic marker F which can be associated with any node in the surface structure". His goal with the introduction of the syntactic F marker (or feature) was to assure that the syntactic constituent marked with F will be "interpreted" both in the phonological component (as pitch accent) and in the semantic component (as exclusive or information focus). This was the only way to handle focus in the T-model, which had the following modular organization of grammar (Chomsky and Lasnik 1977, Chomsky 1981, 1986):

(18) D-structure
    | S-structure
    /                \
   Phonological     Logical
   Form             Form

Since focus is a relevant concept both at PF and LF, and these interfaces have access to S-structure only, the property focus (in terms of a FOCUS feature) must be present in the S-structure representation of sentences.

It is important to see that the Jackendovian model of FOCUS marking is not the same as the Hungarian model of FOCUS assignment. The Hungarian FOCUS assignment model was devised to account for word order properties of sentences with exclusive focus constituents (since information focus constituents do not undergo movement in Hungarian), while the Jackendovian FOCUS marking was devised to characterize all types of focus constituents, exclusive and non-exclusive focus alike, since both types of focus have a connection to PF/LF. Thus, it is important to keep in mind that the Hungarian specific FOCUS feature is a special, EXCLUSIVE FOCUS feature. For information focus, a different focus feature must be hypothesized, one that may be equivalent to the Jackendovian FOCUS feature. In what follows I put aside information focus altogether, and concentrate on exclusive focus only.
1.2.1.2. Minimalist analysis

The Hungarian model with an assigned FOCUS feature for exclusive focus was later replaced by a checking model, in line with minimalism (Chomsky 1993), in which an (exclusive) focus feature $<+f>$ on the moving item itself results in movement to a checking position, to Spec,FocP (Brody 1995). Foc$^0$ is claimed to possess a $<+f>$ feature, which must be strong in Hungarian, since movement to FocP is overt.

The nature of the $<+f>$ feature has never been very clear. What we can be sure of is that in standard cases, $<+f>$ is not an inherent lexical feature, since lexical items are not marked for focus in the lexicon (putting aside focus particles like csak ‘only’). Rather, keeping in line with minimalist principles, this feature must be added to lexical items in the numeration.\(^3\)

Brody (1995) is the current and most influential account of Hungarian focus movement. Building on other work on the preverbal field, Brody posits FocP among the following structural positions in the preverbal field in Hungarian:

\[(2) \{CP \{TopP* \{DistP* \{FocP \{VP \} \} \} \} \} \]

Note that this model, which replaces FOCUS assignment with checking, is less explanatory as far as verb movement is concerned. Since it is no longer the verb that assigns the focus feature, verb movement to Foc$^0$ must be the result of Foc$^0$ possessing strong verbal features.

Since in this dissertation I am working within the 1995 minimalist model (Chomsky 1995: Chapter 4), for later reference I update Brody (1995) here in this model as well.

In the updated version, Brody’s original account carries over with two points of modification. One is that according to the 1995 minimalist model movement is triggered by features on functional heads, i.e. in this case on Foc$^0$, rather than the focused item itself. The other difference between the 1993 and 1995 minimalist models is that in the latter, features have subfeatures: they can be either interpretable or uninterpretable. In the case of focus we need to ask whether $<+f>$ is interpretable or not on the Foc$^0$ head and on the focused XP item. The determination of interpretability is a difficult task, but can be done on the basis of empirical evidence.

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\(^3\)The assignment of the $<+f>$ feature to lexical items (i.e. heads) in the numeration matches those models of the general focus projection that treat focus marking in a bottom-up manner (Selkirk 1986).

Focus marking of an element at PF (stress assignment) does not always correspond to the same element being interpreted as focus at LF. Mismatch between these two is possible if stress falls on a head or (the head of) an argument — in these cases, either the head/argument or the XP whose head/argument bears stress can be interpreted as focus. Explanations for this fact have been of two types. The bottom-up approach (Selkirk 1986, Rochemont 1986, Winkler 1997) claimed that the focus feature is a property of the terminal item that gets stressed (the focus exponent), but logical form can interpret a larger constituent as focus because the focus feature can percolate upwards on the projection line. The top-down approach on the other hand (Jacobs 1991, Cinque 1993) takes the constituent that is interpreted as focus to get the focus feature. Stress assignment on a terminal element is due to the focus feature trickling down onto a head/argument.

The minimalist $<+f>$ feature approach sides with the bottom-up approaches due to the fact that in minimalism, features can only be combined with heads and never with larger structures.
If $<+f>$ were [+interpretable], it should have the same semantic contribution wherever it is found; it would influence the interpretation of the sentence. If the Foc$^0$ head has a [+interpretable] $<+f>$ feature, we expect that it ensures that the constituent in its specifier is interpreted as exclusive focus of the sentence. This, however, is not always the case. Hungarian provides evidence for the split between focus interpretation and focus movement to Spec,FocP. For illustration, consider the following example. The focused constituent is an argument of the VP. The sentence can be interpreted either with exclusive focus on a $\texttt{a füvet} 'the grass-ACC'$ (19a), or with exclusive focus on the whole VP (19b):

(19) Péter $[\text{Foc}^0$a FÜVET$_1$ nyirta, $[\text{Spec,} \text{FocP} \text{le } [\text{VP } t_t ]]]$.
Péter-NOM the grass-ACC mowed-3SG PV
  a. ‘It was the grass that Péter mowed.’
  b. ‘It was mowing the grass that Péter did (and not playing, etc.)’

That is, we see that the item that overtly raises to Spec,FocP need not get exclusive focus interpretation. If $<+f>$ was interpretable on Foc$^0$, it could only be the DP a $\texttt{a füvet} 'the grass' which is assigned focus interpretation in (19), since this is the only constituent that is in a spec-head relation to Foc$^0$. However, in one of the readings, this DP crucially is not interpreted as focus, which must mean that $<+f>$ on Foc$^0$ cannot be interpretable.\(^4\)

The next step is to determine what kind of focus feature the focused item has. Here, (19) with a VP-focus reading is relevant again. In (19), if the VP is interpreted as the exclusive focus of the sentence (19b), the item moving to Spec,FocP is not interpreted as such. Therefore, we must generalize to the “worse case” and conclude that focus interpretation is independent of movement to Spec,FocP in the sense that the moving item need not be interpreted as focus. This must mean that in cases like (19) with VP-focus meaning, the moving item carries a [-interpretable] focus feature.\(^5\) Focus interpretation comes in due to another formative: a focus operator

\(^4\)The Foc$^0$ head, if one assumes one, has a [-interpretable] $<+f>$ feature in English, as well. In English, focus is in situ in overt syntax. It has been argued, however, that focus moves at the level of LF to a focus licensing position (Chomsky 1976) (although Rooth (1985) argues against this view). Chomsky’s argument for movement comes from weak cross over effects with an in situ focus phrase, which suggests that at LF, (1a) contains a variable with a coindexed pronoun on its left (1b):

(i) a. *The woman he loved betrayed JOHN.
   b. the x such that the woman he loved betrayed x = is John

If the focus John moves to a sentence initial position at LF, a WCO configuration arises, which explains why the indicated coindexation in the above sentence is impossible. If LF focus movement has to be accounted for, in 1995 minimalism it is to be taken as feature movement to Foc$^0$ triggered by the requirements of Foc$^0$. This in turn must mean that Foc$^0$ has a [-interpretable] focus feature, or otherwise no movement can ensue, since at LF [-interpretable] weak features do not trigger movement.

\(^5\)If $<+f>$ is [-interpretable], we expect it to be checkable only once, since it has to disappear after checking. This is borne out: Foc$^0$ can only attract one focus phrase, and long focus movement shows that the focused item cannot land in more than one FocP. (i) illustrates this for Hungarian focus and wh-movement: long movement is only fine if the embedded clause, which contains the trace of the extractee, does not contain a trace in the embedded focus position (observe the preverb-verb order):
that belongs to the constituent that is interpreted as focus. I opt for calling this formative an operator. In (19), repeated here in a tree-format, this operator is on the VP, while \(<+f>\) gets attracted into Spec.FoCP:

\[
\text{(19')} \quad \begin{array}{c}
\text{TopP} \\
\text{Péter} \\
\text{FocP} \\
\text{a füvet} \\
\text{\texttt{<+f>}} \\
\text{\texttt{Foc'}} \\
\text{nyírta} \\
\text{le} \\
\text{\ldots} \\
\text{VP (Op_f)} \\
\text{\ldots t \ldots t_j}
\end{array}
\]

By assuming two formatives, a \(<+f>\) relevant for syntax/phonology and Op_f for interpretation we make the two sides of focus independent. The syntactic/phonological reflex of focus differs from the interpretive focus. This take might seem unattractive, but empirical considerations like the VP-focus reading in (19) force us to adopt it. Naturally, in cases where focus movement and focus interpretation affect the same constituent, there is both a \(<+f>\) and an Op_f present on the item: the \(<+f>\) feature is responsible for syntactic movement, while Op_f for interpretation. In cases where \(<+f>\) and Op_f are not on the same item, there is one restriction on their distribution: the \(<+f>\) feature must be dominated by the node that carries the focus operator. This is necessary to account for the fact that what is syntactically/phonologically marked for focus must be a head/argument of the constituent that is interpreted as focus. I do not pursue this issue here any further.

The outline of the syntax of focus I proposed here takes care of focus

(ii) a. *[FocP\textsc{PETERT}_t] hallottam [hogy [FocP t_hivtad meg]]].
    Péter-ACC heard-1SG-DEF that invited-2SG PV
b. [FocP\textsc{PETERT}_t] hallottam [hogy meghivtad t_i]].
    Péter-ACC heard-1SG-DEF that PV-invited-2SG
   ’It was Péter whom I heard you invited.’
c. *[FocP\textsc{Kit}_t] hallottal [hogy [FocP t_hivtak meg]]].
    who-ACC heard-2SG -INDEF that invited-3PL PV
d. Kit hallottal [hogy meghivtak t_i]]?
    who-ACC heard-2SG -INDEF that PV-invited-3PL
   ’Who was it whom you hearded that they invited?’

*By proposing to handle semantic focus marking in terms of an operator I do not aim to suggest that there are no other, possibly more minimalist ways to accomplish this. I adopt an operator-approach because focus has already been analyzed in terms of an operator that is present in the structure of clauses. For a recent example, see the approach of Horvath (2000) in terms of a so-called exhaustive identifierational (EI) operator, which fills Foc9.
interpretation and checking in the most economical way (it cannot be made simpler without losing empirical adequacy). This is what I take to be the current analysis of exclusive focus in Hungarian, as an updated version of Brody (1995).

1.2.2. The analysis of wh-movement

In section 1.1.1 above it has already been pointed out that focus and wh-items share many syntactic, phonological and semantic properties. Besides the similarities pointed out there, we find strict syntactic parallels in the nature of the syntactic chain formation in languages where focus and wh-items move overtly. Both wh-movement and focusing form A-bar chains. They both exhibit subjacency effects and license parasitic gaps, which are signs of the respective chains being of A-bar nature (Chomsky 1977). (20) and (21) show that in the case of either focus or wh-movement, extraction out of an argumental CP is fine, but out of a complex NP it is not possible:

(20) a. MARINAK hallottad [CP hogy segitetteg t1].
Mari-DAT heard-2SG that helped-1SG
‘It is MARI that you heard I helped.’

b. *MARINAK hallottad a hirt [CP hogy segitetteg t1].
Mari-DAT heard-2SG the news-ACC that helped-1SG
intended: ‘It is Mari that you heard the news that I helped her.’

(21) a. Kinek hallottad [CP hogy segitetteg t1]?
who-DAT heard-2SG that helped-1SG
‘Who did you hear that I helped?’

b. *Kinek hallottad a hirt [CP hogy segitetteg t1]?
who-DAT heard-2SG the news-ACC that helped-1SG
intended: ‘Who is it that you heard the news that I helped him/her?’

(22a,b) shows that focus and wh-movement both license parasitic gaps. (23) shows that parasitic gaps are ungrammatical in neutral clauses:

(22) a. A KÖNYVEKET dobta el János t1 [mielőtt elolvasta volna pgj].
the books-ACC threw-3SG PV János-NOM before read-3SG COND
‘It was the books that János threw away before reading.’

b. Miket dobott el János t1 [mielőtt elolvasott volna pgj]?
what-ACC threw-3SG PV János-NOM before read-3SG COND
‘What did John throw away without reading?’

(23) *János eldoba a könyveket, [mielőtt elolvasta volna pgj].
János-NOM PV-threw-3SG the books-ACC before read-3SG COND

The above sentences prove that wh-items and exclusive focus show similar syntactic behaviour, they both exemplify A-bar movements. Moreover, as I have shown in the outset (section 1.1.1) both wh-items and focus move to the same position in Hungarian. The overall parallelism has led researchers to assume the same analysis for wh-movement and for focusing.
There are two mentions of *wh*-movement in Hungarian available in the literature: Horvath (1986) and Brody (1990a,b). The two authors agree in the above, namely that *wh*-movement is almost wholesale similar to movement of focused constituents. That is, for Horvath (1986), who works in a FOCUS feature framework (see the previous section), *wh*-items in Hungarian move to the position where focused items also do and get a FOCUS feature assigned by the verb. Brody (1990a,b) claims the same: *wh*-items and focus move to the same preverbal position, FocP, and get a feature there, \(<+t>\).

Beside these main lines we find the following ingredients in the analyses. Horvath (1986) mentions that overt movement is not all there is in either case. There is a covert component involved in *wh*-movement and focusing as well. According to Horvath, both *wh*-items and focused elements undergo LF-movement to positions higher than their surface landing sites. The movement of these elements is necessitated by theory-internal considerations, having to do with the licensing of traces. To see this, we have to see how Horvath represents the preverbal focus position:

\[(24) \quad \text{S-structure representation of questions/clauses with focus in Hungarian (Horvath 1986)}\]

```
S'  
    ...  
    VP  
      ... t_i ...  
      V'  
        focus/wh_i  
          V
```

As she notes, the focused/*wh*-item in the preverbal position finds itself in an A-position and does not c-command the trace \((t_i)\) it leaves behind. Since traces qualify as variables that need to be A-bar bound by an appropriate operator at some point in the syntactic derivation, (24) does not as yet satisfy the requirements for the proper binding of \(t_i\). For this reason, Horvath assumes that the moved elements undergo further movement at LF into an A-bar position, where binding can ensue. This way \(t_i\) gets c-commanded at LF. The position *wh*-items raise to is COMP (the sentence initial position, corresponding to Spec,CP in later terminology), and the position focus raises to is an adjoined position between VP and CP (the latter represented as \(S'\)).
(24') LF-structure representation of a question or clause with a focused item in Hungarian (Horvath 1986)

\[
S' \\
wh_i \rightarrow S \\
focus_i \rightarrow VP \\
V' \rightarrow \ldots t_i \ldots \\
t_i \rightarrow V
\]

LF-movement of the wh-item or focus, although it takes place to two different positions, is motivated on the basis of the same principle in both cases (that of proper licensing of traces). This means that in effect no difference is recognized between the two movement types in Horvath’s analysis.

Brody (1990a,b) does not distinguish between focus and wh-movement in terms of LF landing sites. He notes another difference between wh-movement and exclusive focusing: if there is more than one wh-item present in the clause, they are grammatical in the preverbal focus position while multiple foci in the same position are not. For this difference, Brody offers a somewhat unattractive explanation. He claims that wh-items are able to assign \(<f>\) by themselves, and this way they can license further wh-items on their left, while focus is unable to assign a focus feature to other focus constituents:

(25) a. \([\text{FocP} \, \text{Kit}_{1,<f>} \, \text{kit}_{2,<f>} \, [\text{Foc} \, \text{hivott} \, [\text{VP meg}]]]?\)
   ‘Who invited whom?’

b. *PÉTER MARIT hivta meg.
   Péter-NOM Mari-ACC invited-3SG-DEF PV
   intended: ‘It was Péter who invited MARI.’

That is, according to Brody, kit gets its \(<f>\) feature from the verb, and itself assigns a \(<f>\) feature to ki. This is why (25a) is grammatical: both wh-items obtain a \(<f>\) feature. Focus does not work this way: an exclusive focus item cannot assign a \(<f>\) feature to any constituent on its left, which explains why two foci cannot co-occur in one FocP (25b).

This explanation for the pattern observed in (25) is not really convincing. Moreover, facts like (25b) might have an explanation completely independent of feature assignment and focusing. Starting from É. Kiss (1993) it is known that in multiple questions of the kind in (25a), the first wh-item is not sitting in Spec,FocP, but rather in Spec,DistP (for more on it, see Chapter 3). Consequently, the first wh-
item does not behave like an ordinary question word, but rather as a universal quantifier. This view on multiple questions undermines Brody’s explanation for the difference between (25a) and (25b). Following É. Kiss’ analysis, nothing special has to be said to account for this difference in terms of features. (25b) is ungrammatical because a lexical focus phrase cannot be interpreted as a universal quantifier, i.e. it cannot be situated outside FocP. Multiple filling of FocP can be argued to be impossible in Hungarian, due to the fact that <+f> on Foc⁰ is [-interpretable] and therefore deletes after it attracts the first constituent with <+f>.

As far as the internal syntax of interrogative clauses is concerned, Brody (1990a,b) and Brody (1995) are the only analyses where this subject is treated to some extent. In languages like English, a so-called WH-criterion is at work (Rizzi 1990):

(26)  
(A) At S-structure and LF the spec of a +wh XP must contain a <+wh> phrase.  
(B) At LF all <+wh> phrases must be in the spec of +wh XP.

This criterion sums up the formal restriction that wh-items can only occur in (the Spec,CP position of) question clauses, and prescribes that each question clause contains a wh-item (in the Spec,CP position). According to Brody, the above WH-criterion can be “parametrized”: different languages have it with respect to different features — it exists in the form of a focus criterion in Hungarian:

(27)  
(A) At S-structure and LF the spec of a +f XP must contain a <+f> phrase.  
(B) At LF all <+f> phrases must be in the spec of a +f XP.

In English, the functional category with a <+wh> feature is CP. This must be filled with a <+wh> item (as (26) states). In Hungarian, instead of (26), a focus criterion is operative, so a <+f> functional category must host a <+f> item. To account for the movement of wh-phrases to FocP, the requirement in (26) would be enough, since Brody assumes that wh-items have a <+f> feature only. However, Brody goes further, and introduces (28), presumably to parallel the terminology and analysis found in the English literature, where interrogative clauses are claimed to possess a <+wh> feature.

(28) A <+wh> FocP must contain a wh-phrase at S-structure and LF.

That is, according to Brody (1990a,b), a <+wh> CP in English corresponds to a <+wh> FocP in Hungarian, i.e. the interrogative nature of clauses in Hungarian is encoded in FocP, which is a distinct functional category from CP.

Given that it represents the most recent account of wh-movement, I take Brody’s (1995) account as the standard account of wh-movement in Hungarian. In the following section I will point out what shortcomings it suffers from, and on which
points it has to be amended to serve as a complete account for wh-movement in this language.

1.3. Problems with the current analysis of wh-movement

1.3.1. Feature specification of focus and wh-items
While the assumption that FocP in Hungarian is the position where checking of the <+f> feature on focused items takes place is undisputed, Brody’s account reviewed above leaves many questions open concerning the actual mechanism of wh-movement. The introduction of clause (27) coupled with (28) has many consequences and it raises many questions, the most important ones concerning the distribution and proper identification of features on wh-items and on functional projections characterizing questions:

(i) What kind of features do wh-items and focused constituents have? Do they share the same set of features? Or do wh-items possess a <+wh> feature that is different from <+f>? If they do, do they also possess a <+f> feature independently?
(ii) Is there a functional category that possesses a <+wh> feature, and if so, is it FocP? If it is FocP that is specified for <+wh>, what role does CP play in interrogative clauses in Hungarian?

Since Brody’s account does not offer satisfactory answers to these questions, they sum up the research agenda for a more systematic study of wh-movement.

1.3.2. Selection
With the relativization of the wh-criterion, and its application to Hungarian as above in (27/28), Hungarian becomes a language in which the wh-property of clauses (whether a clause is a wh-question or not) is represented quite low in the clausal architecture of embedded clauses, namely on FocP. This is not a problem as far as the wh-criterion itself is concerned, but it does present a problem as far as the selection and distribution of the <+wh> feature on functional heads is concerned.

English constituent questions are taken to be CPs, which are marked for questionhood in the syntax by way of a <+wh> formative. In early formulations (Katz and Postal 1964, Baker 1970) the <+wh>-hood of CPs was signalled by a Q question operator in COMP. In preminimalist terminology, questionhood was due to a <+wh> feature on C⁰. This required that a <+wh> item land in this position (cf. (26) above). In the minimalist framework, C⁰ is claimed to have a <+wh> feature that needs to be checked against a <+wh> feature on wh-items.

Whichever theory we choose, it has to account for the fact that questions, i.e. <+wh>-clauses, can be selected in some cases by a matrix predicate. Wonder for example can only embed a question:
a. I wonder whom you invited.
b. *I wonder that you invited Peter.

This simple fact was referred to as selection in GB syntax, and it was argued to be possible only under government. Matrix verbs governing an embedded CP can determine what features the CP should have, for example, a <\+wh> feature. They cannot determine the nature of a CP that they do not govern; for example, wonder cannot select a question across another clause:7

(30) *I wonder [CP1 whom thinks [CP2 whom you invited]].

CP2 embedded under CP1 does not observe the selectional requirements of wonder.

It is not obvious how selection is accounted for in the minimalist framework, which lacks the notion of government altogether. Whichever way we account for selection in minimalism, the simple facts in terms of GB government have to be accounted for by minimalism as well. This means that if a clause is a <\+wh> clause, the <\+wh> feature that codes it has to be present on the CP.

The same theoretical considerations require the Hungarian CP to have a <\+wh> feature as well in cases when it is selected:

(31) Kíváncsi vagyok [CP hogy kit hivtál meg].
    curious be-1SG that who-ACC invited-2SG PV
    'I am interested in whom you invited.'

(32) *Kíváncsi vagyok [CP hogy meghivtad Pétert].
    curious be-1SG that PV-invited-2SG Péter-ACC
    *I am interested in that you invited Péter.'

If the <\+wh> feature, as assumed by Brody (1995), is sitting on Foc$^0$ (where the focus criterion holds), it is not obvious that this <\+wh> feature is visible on the CP as well, all the more so because the complementizer hogy ‘that’ in Hungarian is not an interrogative complementizer, it is present both in questions and in indicative clauses uniformly.

One way of arguing that selection can after all affect a <\+wh> FocP in Hungarian would be to say that the Foc$^0$ head raises unto the highest head of the clause, C$^0$ at some point in the derivation. This movement can only be covert (i.e. feature movement), because the Foc$^0$ head, which contains the verb, does not show up sentence initially in overt syntax.

Although this would be a feasible account in principle, it would still meet a serious problem. Such a proposal would leave the distribution of <\+wh> in the C-domain unprincipled, while it would be desirable to know what determines the

7 Government is defined in (Chomsky 1986) as follows:
α governs β iff
(i) α is a governor
(ii) α e-commands β
(iii) there is no governor closer to β than α
distribution of this feature crosslinguistically.

1.3.3. The distribution of quantifiers

Although Brody’s account was not designed to explain scopal properties, it does make predictions about the scopal properties of wh-items and focus. This is due to the claim that wh-items have a \(<+f>\) feature and the formulation of the focus criterion, repeated here from above:

(27) a. At S-structure and LF the spec of a +f XP must contain a \(<+f>\) phrase.
    b. At LF all \(<+f>\) phrases must be in the spec of +f XP.

Since (27) holds of FocP and \(<+f>\) phrases in Hungarian, it requires that these focused phrases be in FocP at LF. The level of LF being the level where scopal properties are represented, this must mean that focused phrases in Hungarian take scope in FocP. In single focus cases, focus reaches this position in overt syntax and occupies its scope position already at S-structure. Other quantificational phrases (except for left-dislocates and rightward shifted items, which I put aside now) also occupy their scope positions in overt syntax. Since scope translates to c-command in Hungarian, the result is that focus in the preverbal position is scoped over by elements preceding it and scopes over elements following it:

(33) a. Mindig PÉTERT hívtam meg. \(\forall > \text{focus}\)
    always Péter-ACC invited-1SG PV
    ‘At all times, I invited Péter only.’
    b. PÉTERT hívtam meg mindig. \(\text{focus} > \forall\)
    Péter-ACC invited-1SG PV always
    ‘Péter was the only one I invited all the time.’

The focus criterion therefore makes the right prediction for the scope of exclusive focus constituents.

Recall that in Brody’s framework checking of features on wh-items takes place in FocP as well, just as in the case of focus. Given (27), this must mean that wh-items also occupy their LF-position in FocP. The facts in (33), however, do not carry over to wh-items completely (34):

(34) a. *Mindig kit hívtál meg?
    always who-ACC invited-2SG PV
    ‘Who did you invited all the time?’
    b. Kit hívtál meg mindig?
    who-ACC invited-2SG PV always
    ‘Who did you invited all the time?’

(34a) shows that a wh-item cannot be preceded by a quantifier. One might think that wh-items necessarily have to have widest scope in a Hungarian sentence. The fact that (34a) cannot be interpreted with highest scope of the wh-item follows from the
fact that in Hungarian scopal properties must translate into both c-command and precedence (É. Kiss 1993), therefore the c-commanding quantifier must take wider scope than the wh-item. Brody’s account cannot predict the difference between (33a) and (34a): in his account, both a focus and a wh-item occupy the same position and participate in the same checking processes during the derivation, leaving no room for differences between the two that would account for the different patterns in (33a) and (34a).

1.3.4. Distributional differences
Beside the problems in the previous sections, there are others that Brody’s account cannot handle straightforwardly. One group of problematic examples, to which I will return in section 2.3.2 below, involve exclusive focus items and wh-items in specific environments: namely in embedded clauses that are non-interrogative. While focus is fine in these, wh-items are bad. I illustrate them with an example of a relative clause:

(35) a. Nem jöhet be [DP/CP aki PÉTERT ismeri].
   not come-POT-3SG PV who-NOM Péter-ACC know-3SG
   ‘Those who know PÉTER cannot come.’

   b. *Nem jöhet be [DP/CP aki kit ismeri]?
   not come-POT-3SG PV who-NOM who-ACC know-3SG
   ‘Who is it such that those who know him cannot come in?’

In Brody’s account, the difference in grammaticality does not get explained. There is no structural difference whatsoever between (35a) and (35b), the sentences are identical with the exception of the item that fills the Spec, FocP position. Since a wh-item is ungrammatical in this construction, we have to conclude that we are dealing with a construction that cannot license an embedded wh-item, but can license a focus. This indicates that wh-items have a different licensing mechanism from exclusive focus, i.e. their syntax cannot be completely the same.

2. Wh-movement in Hungarian: a new account

In this section I propose a minimalist analysis of wh-movement in Hungarian that is more adequate than the current account. Beside being more adequate, my analysis will build on the finding that wh-items are variables in Hungarian (see Chapter 1).

In the Minimalist Program (Chomsky 1995), movement must be ascribed to the need to check syntactic features. The fact that both focus and wh-items move to the same position in overt syntax in Hungarian made researchers think that the two ultimately possess the same set of features (features checked in the same positions). I will challenge this view here and show that interrogative pronouns possess two different features: <+f> and <+wh>. The presence of the <+wh> feature makes wh-items distinct from focus items, which only possess a <+f> feature. The <+wh> feature is introduced to the wh-item by a phonologically covert Qn morpheme
attaching to the \textit{wh}-item at the word level. This Q_{\text{wh}} is the quantificational (question) operator that binds the variable \textit{wh}-items. In my view therefore, the \textit{<+wh>} feature is not a morphosyntactic feature of \textit{wh}-items in any of their occurrences (recall that Hungarian \textit{wh}-items have uses other than question word use). That is, I argue contra Chomsky (1995) that the \textit{<+wh>} feature in Hungarian characterizes only those \textit{wh}-items that are used as question words. The \textit{<+wh>} feature has a syntactic reflex: it is related to the \textit{C}^0 head of question clauses, which itself has a \textit{<+wh>} to check. Therefore, \textit{<+wh>} feature movement to \textit{C}^0 has to take place in the derivation at some point.

Leading up to this account, I will first discuss what differences there are between \textit{wh}-items and phrases with exclusive focus interpretation as far as feature content is concerned (section 2.1). This discussion will reveal that \textit{wh}-items possess minimally two different operator-features: a \textit{<+wh>} feature, and a \textit{<+f>} feature, while focus items only have the latter. This difference explains the different syntactic patterning of the two items. Foci move to Spec,FocP. \textit{Wh}-items, on the other hand, beside moving to Spec,FocP for reasons of \textit{<+f>} feature checking, have a special syntactic requirement: they have to entertain a relation with a \textit{<+wh>} head as well, which is not \textit{Foc}^0 (contrary to Brody 1995), but \textit{C}^0. In section 2.3 I will show that the requirement to establish a relation with \textit{C}^0 causes \textit{wh}-items to pattern differently from exclusive focus in overt syntax, clearly visible in the behaviour they exhibit with respect to quantifiers and in clausal pied-piping and scope marking constructions.

2.1. Feature content of focus and \textit{wh}-items

2.1.1. Crosslinguistic generalization about overt focus and \textit{wh}-movement

In the minimalist program all movements are taken to be necessitated by feature-checking procedures. Overt movement of a constituent into a specifier position is triggered by a functional head that contains a strong attracting feature of some sort that has to be checked off by a particular constituent. (The same relation would translate into AGREE in Chomsky (1999)). Weak features on functional heads do not trigger overt movement: they can be checked off at LF, too, in covert movement. LF movement is considered to be feature movement only (i.e. head-movement).

The fact that Hungarian \textit{wh}-items and exclusive focus constituents land in the same overt position has led Brody (1990a,b, 1995) to the conclusion that \textit{wh}-items and focus both possess the same feature, \textit{<+f>}. While this seems to be an uncomplicated view, there are ways to show that the picture is in fact more complicated.

There is one strong empirical argument for saying that \textit{wh}-items and focus cannot have exactly the same syntactic features. The argument comes from a crosslinguistic generalization about overt movement of focused constituents and \textit{wh}-items. Looking at a large number of languages, the pattern that emerges is that the occurrence of ex situ focus and ex situ \textit{wh}-items is related, but only in one direction: if a language has
overt focus movement, it has overt wh-movement as well; but if a language has overt wh-movement, it need not have overt focus movement. That is, overt focus movement in languages necessarily implies overt wh-movement, but not vice versa.

The following table contains information about some languages. The first three rows of this table I borrow from Kenesei (1995):

Table 1. The pattern of overt wh- and focus movement

<table>
<thead>
<tr>
<th></th>
<th>wh-movement</th>
<th>focus movement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chinese, Japanese</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td>English, Germanic</td>
<td>✓</td>
<td>*</td>
</tr>
<tr>
<td>Aghem, Hungarian, Tuki</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>?</td>
<td>*</td>
<td>✓</td>
</tr>
</tbody>
</table>

The pattern that no language seems to exhibit is the one in the fourth line in Table 1, which describes a language in which overt wh-movement is not attested, but focus movement is.\(^8\)

If Table 1 indeed reflects the right generalization about the crosslinguistic distribution of wh-movement and focus movement, what implications does this have for the theory of wh-movement and focusing? In the minimalist program, overt movement is triggered by strong features on functional heads. If our generalization is correct, and there is indeed no language that exhibits the pattern in the fourth line, we can conclude the following:

(i) there must be a feature on wh-items that is the same as that on foci, so that whenever there is a functional head (let us call it Foc\(^0\)) that has a strong feature attracting foci, the same head attracts wh-items as well

---

\(^8\)I am aware of a language type that at first sight seems to be problematic for my generalization in Table 1. It is exemplified by Bahasa Indonesia or Tuki. In these languages, while focus must undergo movement, wh-items can optionally be moved or left in situ:

(i) a. a-te (aye) Puta a-ma-namba
    what (FOC) Puta SM-p2-cook
    ‘What did Puta cook?’

b. Puta a-dingam ane
   Puta SM-loves who
   ‘Who does Puta love?’

However, this does not contradict the generalization in Table 1, since overt wh-movement is always at least possible in these languages. Second, there are indications that wh-in situ in these languages is “not real”. First, using in situ wh-items in these languages in not a primary mode of questioning, which is reflected by the fact that in situ wh-items do not observe subadjacency (unlike in so-called wh-in situ languages like Chinese or Japanese). Second, the position of these in situ wh-items is not exactly their base position. In Tuki, for example, they have to be sentence final, which could be argued to be an A-bar position of sorts.
(ii) $wh$-items must possess another feature as well, which in some languages corresponds to a strong feature on a functional head not equivalent to a strong feature that attracts foci in these languages, so that in these languages $wh$-phrases overtly move to a specific position, but foci do not.

I will refer to the feature that characterizes $wh$-items but not focus as a $<+wh>$ feature. This is the feature that is responsible for movement operations into positions other than the focus position. The feature that is a property of both focus and $wh$-items I will continue to refer to as $<+f>$, the focus feature, following the terminology of previous sections. In Hungarian this $<+f>$ feature characterizes exclusive focus constituents. The feature content of $wh$-items and focus that we arrive at on the basis of the crosslinguistic generalization in Table 1 is shown in Table 2. 

Table 2. Feature content of $wh$-items and exclusive focus

<table>
<thead>
<tr>
<th>feature content</th>
<th>$wh$-items</th>
<th>excl. focus</th>
</tr>
</thead>
<tbody>
<tr>
<td>$&lt;+f&gt;,&lt;+wh&gt;$</td>
<td></td>
<td>$&lt;+f&gt;$</td>
</tr>
</tbody>
</table>

The variation in Table 1 comes about in the following way. Remember that features in minimalism can be strong or weak. Languages like Chinese (row 1 in Table 1) do not have a strong $<+wh>$ feature on a functional head attracting $<+wh>$ items. Similarly, they do not have a strong $<+f>$ feature on a functional head either. This leads to no movement of $wh$-items or focus in these languages. English-type languages (row 2 in Table 1) have a strong feature attracting $<+wh>$, but a weak feature attracting $<+f>$, which results in overt movement of $wh$-items, but no overt movement of foci. Hungarian-type languages (row 3 in Table 1) have a functional head with a strong feature attracting items with a $<+f>$ feature, therefore, $wh$-items and foci move alike in overt syntax, into the very same position. It is also clear that in this language type the $<+wh>$ feature is not attracted by a strong functional head distinct from Foc, and this way, it is the $<+f>$ feature alone that determines the order of elements on the surface.

We see that this system with parametrized feature strength and the crosslinguistically constant feature content of $wh$-items and focus can describe the whole range of language variation we find.

Note that Table 1 only reflects that the features $<+wh>$ and $<+f>$ are distinct entities on functional categories (and on maximal projections). Table 1 in itself does not help determine whether $<+f>$ and $<+wh>$ can be found on the same functional head or not. It can be the case that $<+wh>$ and $<+f>$ are always found on the same functional head in all languages (i.e. on a functional head with a double feature

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9 Horvath (1981) assumed the same set of formatives present on $wh$-items as the ones argued for in this section.

10 Note that if English-type languages do have a projection of focus phrase in their structure, $wh$-items can land in this position to check $<+f>$ in overt syntax on their way up to Spec,CP. This movement step, however, gets concealed due to the fact that the CP projection dominates FocP.
specification). If this were the case, Chinese-type languages would have both $<$+wh$>$ and $<$+f$>$ weak, English-type languages would have a strong $<$+wh$>$ and a weak $<$+f$>$ feature on this functional head. In the case of Hungarian, feature strength could not be decided upon so easily. It could equally be the case that $<$+f$>$ is strong and $<$+wh$>$ is weak; or that both $<$+f$>$ and $<$+wh$>$ are strong: both options would lead to the overt movement of wh-items and foci to the same positions.

It is therefore yet to decide whether $<$+wh$>$ and $<$+f$>$ can be hosted by the same functional head or not. Strictly following the minimalist theory, one would have to assign only one feature to each functional head (Chomsky 1995). That is, $<$+wh$>$ and $<$+f$>$ should correspond to two different functional heads in the structure of the clause.

But beside the “one feature per functional head” principle, there is another consideration that argues for the same take on this issue. Cinque (1999) argues that the set and order of functional projections is constant across languages, not subject to parametric variation. Let us take this as a starting point. Then given that in many languages, like in English, wh-items check a feature on C$^0$ (Cheng 1991, Chomsky 1995), while in other languages, like in Hungarian, they check a feature on Foc$^0$ (Brody 1990a,b,1995), the fact that C$^0$ and Foc$^0$ are clearly distinct functional heads in the syntactic structure universally (Horvath 1986, É. Kiss 1987) shows us that the two features on wh-items ($<$+wh$>$ and $<$+f$>$) correspond to two distinct functional heads in the structure.

On the basis of these considerations, we conclude that the checking of $<$+wh$>$ on wh-items takes place not on Foc$^0$ but on a different functional category. Therefore, out of the following two a priori possible options, (ii) is preferred to (i):

$<$+wh$>$ feature checking
(i) takes place on Foc$^0$, in which case the attracting feature can be strong or weak, without an effect on word order, since the Spec,FocP position is reached by wh-elements in overt syntax anyway
(ii) does not take place on Foc$^0$, but on some other functional head; in this case, the attracted feature is
(a) strong if the functional projection of this head is dominated by FocP11
(b) weak if the functional projection of this head dominates FocP

For now, option (ii) has only been argued for internal to the theory. In section 2.3 I show that there is empirical evidence for (ii) as well. The $<$+wh$>$ feature on wh-items is attracted by a weak $<$+wh$>$ feature on C$^0$, which is the same head as the attracting head in English-type languages. Arguments to this effect will come from the behaviour of quantificational interveners and distributional properties of wh-items in clausal structures.

11Chomsky (1995: Chapter 4) does not rule it out that this feature is weak — overt movement can involve more than one steps, including steps to check a weak feature on a functional head. I do not take this to a be a possibility following Den Dikken (2000), which argues that weak features cannot be checked accidentally in overt movement.
2.1.2. The internal structure of *wh*-items and the location of features

In the previous section it was shown that interrogative pronouns in Hungarian possess two syntactically active features: a +wh feature, which is specific to them, and a +f feature, which is the same as the one on focused items. In what configuration do these features find themselves?

In the recent literature the +wh feature on *wh*-items is treated as a morphosyntactic feature on the *wh*-items themselves (Chomsky 1995). This means that this feature characterizes any item whose morphology includes a *wh* sequence. Given that morphological properties are stored in the lexicon, it follows that the +wh feature is a lexical (and therefore inherent) feature of *wh*-items. In the syntactic configuration, according to Chomsky (1995), we find another occurrence of a +wh feature, on interrogative complementizers. This feature needs to get checked by *wh*-items raising into Spec,CP at some point in the derivation: if it is a strong feature, in overt syntax; if it is weak, covertly.

This, however, need not be so in all languages. Chomsky’s (1995) treatment of the +wh feature is modelled to handle *wh*-items in English, which are only used as interrogative elements or relative pronouns, the latter usually put aside, but crucially not as indefinites. Due to this, it is taken to be uncontroversial that in all their occurrences they take part in a checking procedure with a +wh C0.

In other languages, however, *wh*-items occur in many more environments than just in interrogative clauses. In contexts other than questions, checking of the +wh feature against an interrogative C0 is hard to argue for. As Chapter 1 has shown, Hungarian is a language where *wh*-items behave as variables and occur in many different contexts, bound by different quantificational elements. The quantificational element that does the binding can be of two kinds: a word-level binder that attaches to the *wh*-item and forms a phonological word with it, or an external binder that does not form a word (or a constituent) with the *wh*-item. The two types are exemplified in (36) and (37) with the binding relation involved:

(36) a. minden-ki ‘everyone’
    every-who    [DP ∀ [wh]]

b. vala-ki ‘someone’
   some-who    [DP ∃ [wh]]

(37) Van kivel megbeszélni a problémát.
    is who-INS PV-talk-INF the problem-ACC
   ‘There is someone/there are people to talk to about the problem.’
   [CP ∃ [IP ... wh ...]]

In (36) we have quantificational morphemes that form a word with the *wh*-items. The interpretation of the resulting complex (marked as a DP here) is determined by the semantic content of this morpheme: minden- results in universal meaning, vala- in an existential one. Similarly, in (37), the *wh*-item has an existential binder: the

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12Note that according to some (e.g. Sloan 1991, Tsai 1994) English *wh*-items also behave as indefinites. For further details on this, see Chapter 1.
existential operator (as part of the existential predicate) in the matrix clause.

Given that the variable status of wh-items in Hungarian can be established with certainty, it must be the case that wh-items are variables also in questions. In questions we find bare wh-items only, without any overt morphology added. Still, the interpretation of wh-items in questions is always unambiguously that of a question word. This, in my view, is the result of there being a quantificational item Q_{wh} present in questions that binds the wh-item and unambiguously assigns question word interpretation to it. To parallel the situation with the morphologically overt minden— and vala— quantifiers that attach to the wh-item at the word-level, I take the question operator Q_{wh}, to be a word-level binder as well, which appears in the form of a morphologically non-overt morpheme:

(38) \[ [\text{DP } Q_{wh} \ [\text{wh}]] \quad Q_{wh}: \text{question operator} \]

The Q_{wh} operator is responsible for question semantics: this is the item that binds the wh-item, a variable. The presence of Q_{wh}, however, also has to be coupled with question syntax in the clause, to a checking mechanism. In the previous section I have shown that wh-items in questions possess a ++wh feature (beside a ++f feature). In the representation I am developing here in (38), the ++wh feature we have identified must be syntactically introduced by the Q_{wh} morpheme. This Q_{wh} morpheme whenever present, is only compatible with a question word interpretation for wh-items, given that it is the source of this interpretation. Whenever this morpheme is present, it introduces a ++wh feature, which, as in other languages, is related to C^0. The ++wh feature has to raise to C^0 at some point to check the ++wh feature on C^0:

(39) \[ [\text{CP } [C^0 \ [\text{DP } Q_{wh} \ [\text{wh}]]]] \quad [+\text{wh}] \quad \ldots \ldots \quad [+\text{wh}] \]

To summarize, positing Q_{wh} as a word-level binder of wh-items in Hungarian is motivated by two considerations. First, it is justified to posit a word-level morpheme for wh-items, since Hungarian uses this strategy in other instances as well (see 36 above). Second, by positing this morpheme, we can ascribe the ++wh feature that we find on wh-items in interrogative clauses to this morpheme. This is an advantageous step. As will be shown in sections 2.3.2 and 2.3.3 below, the ++wh feature that characterizes interrogative wh-items in Hungarian always needs to be checked at some point in the derivation, by a suitable functional head, which I will argue to be C^0. If the ++wh feature was an inherent lexical property of the bare wh-items themselves, all occurrences of wh-items would have this restriction: all wh-items would have to be found in clauses where there is an interrogative C^0 head. As we have shown in (37) for example, this is not the case in Hungarian: there exist cases where wh-items do not have access to an interrogative C^0 head either because that head is not present in the clause, or it is not specified for being ++wh. Therefore, assuming a ++wh feature in need of checking on these items would lead
to wrong predictions.

Beside the elements sketched in (39), there is one more ingredient that we have not located yet: the syntactic <+f> feature. The previous section has shown that wh-items in Hungarian possess this feature as well. The focus feature characterizes wh-items in questions. Bare wh-items with an indefinite meaning like the one in (37) do not possess this feature: the item we find here is not pronounced with heavy stress and does not move to the exclusive focus position in the syntax. It follows that the <+f> feature in questions is linked to the <+wh> feature: I assume that both are introduced by the Q_{wh} morpheme. The full characterization of features wh-items possess in Hungarian questions is therefore the following:

\[(40) \begin{array}{c}
[Q_{wh}[wh]... ] \\
\langle +wh \rangle \\
\langle +f \rangle 
\end{array}\]

This is the complex item that enters the derivation. The next section spells out what happens to this complex at the different stages in the derivation.

2.2. The mechanism of wh-movement

Building on the results of the previous section, which has specified the internal structure of wh-items in questions, I propose that wh-movement in Hungarian takes place along the following lines.

First of all, the wh-item, as represented in (40), is merged in the base. The complex possesses two features that are relevant for the derivation at hand: a <+f> and a <+wh> feature. In overt syntax, the whole complex raises to Spec,FocP, as argued by Brody (1990a,b, 1995). This movement is triggered by the need to check the focus feature on the Foc\(^0\) head of the clause, and results in the <+f> feature on the wh-complex being checked off:

\[(41) \begin{array}{c}
[CP[C^{C_0}... [FocP \ [Q_{wh}[wh]]_1 \ [Foc^0_0 ... t \ ...]]]] \\
\langle +f \rangle \ldots \ldots \ldots \ldots \langle +f \rangle
\end{array}\]

\[13\text{A similar approach could be taken to account for the properties of exclamative wh-items in Hungarian. Exclamations differ from questions in that they are characterized by a different type of operator, Q_{ex}, but as suggested in Chapter 1, this operator acts as the binder of wh-items similar to the Q_{wh} operator in questions. The only difference is that while Q_{wh} provides wh-items with a <+wh> and a <+f> feature, Q_{ex} only provides them with a <+f> feature. I will return to the lack of a <+wh> feature in exclamative wh-expressions in fn. 18 below.}

The presence of the <+f> feature on exclamative wh-items explains why these items occupy Spec,FocP, just like question words. (i) shows an example where this is reflected by preverb stranding.

(i) (Hogy) mennyit ettél meg!
that how much-ACC ate-2SG PV

'How much you have eaten!}'
As a next step, the <+wh> feature on the wh-complex raises to C\(^0\) to check off the <+wh> feature on C\(^0\). A priori the point in the derivation at which this step happens is far from clear. Given that no overt movement of the wh-item to C\(^0\) is attested, movement, if it takes place, can at most be covert, and, according to Chomsky (1995), covert movement is always feature movement only. So I assume the checking of the <+wh> feature to be a case of feature movement:

\[
(42) \quad [\text{CP} [C C^0 \ldots [\text{FocP} [Q_{wh} [\text{wh}]], \quad [\text{Foc} F^0 [\ldots t, \ldots ]]]]]
\]

Arguments in favour of this scenario will be presented in the following sections. It will be shown that whenever the C\(^0\) head is not present in a clause or is not specified for a <+wh> feature, wh-items are not licensed in the clause. This view is similar to the view presented in Simpson (1996, 2000). Simpson argues (contra Chomsky 1995) that it is (also) the wh-item itself whose needs necessitate the checking procedure, and not only the <+wh> feature on the C\(^0\) head. That is, movement is not always triggered by the need to satisfy features on functional heads only.

One way of implementing this idea in the minimalist framework is to record this requirement in the interpretability of the features involved. There is one way of ensuring that the <+wh> feature on the wh-item gets checked under all circumstances: if it is [\text{--interpretable}]. Since [\text{--interpretable}] features cannot survive till the LF interface, they must be checked off before the end of the derivation or else the derivation crashes. Therefore I take it that the <+wh> feature on the wh-items is [\text{--interpretable}]. The <+f> feature on the wh-item is [+interpretable], as it always corresponds to the semantic focus of the sentence.\(^{14}\)

The <+wh> feature on C\(^0\) is [\text{--interpretable}] and weak. It must be weak, because it does not trigger overt movement of the wh-item; and must be

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\(^{14}\)Whenever there is a wh-item in the focus position, focus interpretation is restricted to the wh-item. Focus percolation (Selkirk 1986) (i.e. the propagation of a focus feature to a higher node) is impossible with wh-items. For example, focus interpretation on a VP is impossible, when one of its arguments is questioned (i), while it is fine with lexical focus (ii) (Kenesei 1998b):

(i) Mit olvasol?
\begin{verbatim}
what-ACC read-2SG
\end{verbatim}

'What are you reading?/*What are you doing?'

(ii) A HAMLETET olvastam, (s nem játszottam).
\begin{verbatim}
the Hamlet-ACC read-1SG and not played-1SG
\end{verbatim}

'It was reading Hamlet that I did, not playing.'
[–interpretable], because otherwise it would not trigger movement at LF. The <+f> feature on $\text{Foc}^0$ is similarly [–interpretable], as it does not feed into the semantic component as an item with focus interpretation.

On the basis of this evidence, the checking mechanism of $wh$-movement is presented in (43) in full detail:

(43) $\left[ CP \begin{array}{c} \text{C}^0 \\ \ldots \\ \text{FocP}[\text{Q}_{wh}[\text{wh}]] \\ \text{[Foc}^0 \text{[... t ...]]}] \\
\text{[+wh$_{int}$,weak]} \ldots \ldots \text{[+wh$_{int}$]} \\
\text{[+f$_{int}$]} \ldots \ldots \text{[+f$_{int}$,strong]} \right]$

The model of $wh$-movement in (43) has many advantages. Beside being the only analysis that can account for the problematic data in 1.3.3 and 1.3.4 above (to which we return instantly), it is also superior to the existing accounts when it comes to the problem of selection. As was noted above in section 1.3.2, verbs like wonder select a <+wh> embedded CP in Hungarian, just as they do in English. As it stands, Brody’s (1995) account is silent about how selection is ensured syntactically. If we assume that in Hungarian, just as in English, the <+wh> property of clauses is also marked on the highest head of the clause, i.e. $C^0$, this is not a problem any more. This way Hungarian is not idiosyncratic when it comes to clause-typing: interrogative clauses are marked on the highest head of the clause, i.e. $C^0$. As a result interrogative clauses are recognized as such externally and can be selected by matrix predicates.

### 2.3. Arguments for the new account of $wh$-movement

To support the analysis I explicated above, I review three different phenomena in this section: the distribution of quantifiers with respect to $wh$-items, clausal pied-piping and scope marking. All these constructions independently argue for the ingredients of the analysis I proposed for $wh$-movement in the previous section.

The facts to be discussed here, with the exception of some in section 2.3.2 and 2.3.3, are not new. They have been known for a while, but they were always put aside without proper explanation, because they did not fit into the picture of $wh$-movement which treated $wh$-items and focus on a par. As I will show, the facts to be reviewed here fall into place if we analyze $wh$-movement along the lines of (43).

#### 2.3.1. Licensing of $wh$-items (the interaction between quantifiers and $wh$-items)

##### 2.3.1.1. The data and their analysis

As I have shown already in section 1.3.3 above, focus has scope over that part of the clausal structure that it c-commands in overt syntax. This corresponds to the structure dominated by FocP. If there is a quantifier in this domain, focus has scope over it. If there is a quantifier in the preverbal domain, c-commanding focus, it has scope over focus:
a. Mindig PÉTER hívtam meg. \( \forall \text{focus} \)
   always Péter-ACC invited-1SG PV
   'At all times, I invited PÉTER.'

b. PÉTER hívtam meg mindig. \( \text{focus} \text{\textgreater} \forall \)
   Péter-ACC invited-1SG PV always
   'Péter was the only one I invited all the time.'

Quantifiers on the other hand cannot precede \textit{wh}-items in Hungarian. Quantifiers can only follow \textit{wh}-items, with an interpretation in which the \textit{wh}-item takes scope over the universal quantifier.\(^{15}\)

(45) a. (*Mindig) kit hívtál meg?
    always who-ACC invited-2SG PV
    'Who did you invite all the time?'

b. Kit hívtál meg mindig?
   who-ACC invited-2SG PV always
   'Who was the only one I invited all the time?'

Given that surface order translates into c-command and LF-scope in Hungarian, one can say that (45a) is ungrammatical because \textit{wh}-items cannot be scoped over in Hungarian for some reason. To find out what this reason is, we first we have to settle the question whether this property is a universal property of \textit{wh}-items or a Hungarian-specific one.

We know that it cannot be a universal requirement that \textit{wh}-items have widest scope in the clause, since in many languages, including English, they can be scoped over by distributive quantifier subjects. Examples like (46) are ambiguous:

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\(^{15}\)The following remarks are in order.
In (45a) I do not consider the reading which would arise if \textit{mindig} was a left-dislocated constituent. In this case the scope relation would be \textit{wh} \text{\textgreater} \text{\forall}.

Note also that according to É. Kiss (1993), (45a) exists if it is presupposed that at every time only one person was here:
(i) Mindig kit hívtál meg?
    always who-ACC invited-2SG PV
    'There was one individual here all the time. Who was (s)he?'

However, even with the mentionedforegrounding, these sentences are not natural. Native speakers judge them as categorically ungrammatical, therefore I mark these examples with *, following Kenesei (1986) and Kenesei, Vago and Fenyvesi (1998).

In (45b), the postverbal universal must be pronounced without stress. Otherwise we get different scope relations as described in É. Kiss (1993). If the universal is stressed together with kit, we would get scopal "balance" between the \textit{wh}-item and the universal (balance meaning lack of scopal interactions), and the sentence would mean:
(ii) 'Kit hívtál meg 'mindig?\textsuperscript{14}
    who-ACC invited-2SG PV always
    'Who is identical to the sole person whom you always invited?'

If only the postverbal universal is stressed, the scope relation is \textit{wh} \text{\textgreater} \text{\forall}, and the universal contrasts with an existential:
(iii) Kit hívtál meg 'mindig?
    'Who was such that you invited him all the time as opposed to only some of the times?'
Who did everyone invite?

a. ‘Who was such that everyone invited him/her?’  \( \text{wh} \rightarrow \forall \)

b. ‘Who did each person invite?’ \( \forall \rightarrow \text{wh} \)

It has been repeatedly acknowledged starting from May (1985) that the so-called distributive reading (46b) corresponds to an LF representation where the universal quantifier takes scope over the \( \text{wh} \)-item. This shows that \( \text{wh} \)-items need not have widest scope in their clause. Therefore the explanation for the ungrammaticality of (45a) cannot be sought in a general principle that rules out interrogative \( \text{wh} \)-interpretation under the scope of quantificational items.

The ungrammaticality of Hungarian (45a) therefore must be specific to the environment and arguably syntactically rooted.\(^{16}\) To pin the facts down even further it can be shown that it is the quantificational nature of the preceding material that causes the ungrammaticality. Note that it is not the distributive reading that Hungarian \( \text{wh} \)-items cannot lend themselves to. Distributive readings are fine with phrases that contain the adjective \text{egyes} ‘every single, individual’ as sentence initial topics:

\[(47)\]

\begin{itemize}
  \item a. \( \text{Az egyes esetekben kit hivtál meg?} \)
    
    \begin{tabular}{ll}
      \text{the individual cases-INE} & \text{who-ACC} \\
      \text{invited-2SG} & \text{PV} \\
    \end{tabular}

    ‘Who did you invite in each case?’
  
  \item b. \( \text{Kit hivtál meg az egyes esetekben?} \)
    
    \begin{tabular}{ll}
      \text{who-ACC} & \text{invitedPV} \\
      \text{the individual cases-INE} & \text{‘idem’} \\
    \end{tabular}

  \end{itemize}

The distributive adjective \text{egyes} ‘individual’, internal to the PP, forces distribution over the \( \text{wh} \)-phrase due to its inherent lexical property. The distributive reading in this case is the only possible reading as (47a,b) show: regardless of the \( \text{c-command} \) relation between the \( \text{wh} \)-item and the PP, we only get a distributive reading. Once we quantify over the individual cases with a universal quantifier, the ungrammaticality of (45a) reappears:

\[\text{Az egyes esetekben kit hivtál meg?}\]

\text{who-ACC} \text{invited-2SG} \text{PV}

\[\text{‘Who did you invite in each case?’}\]

\[\text{Kit hivtál meg az egyes esetekben?}\]

\text{who-ACC} \text{invitedPV} \text{the individual cases-INE}

\[\text{‘idem’}\]

\[\text{The distributive adjective egyes ‘individual’, internal to the PP, forces distribution over the wh-phrase due to its inherent lexical property. The distributive reading in this case is the only possible reading as (47a,b) show: regardless of the c-command relation between the wh-item and the PP, we only get a distributive reading. Once we quantify over the individual cases with a universal quantifier, the ungrammaticality of (45a) reappears:}\]

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\(^{16}\) One might try to explain the ungrammaticality of (45a) by a blocking effect, arguing that the \( \forall \rightarrow \text{wh} \) reading is missing because it is expressed by other means, namely by multiple questions in Hungarian:

(i) \text{Mikor kit hivtál meg?}
\text{when who-ACC invited PV}

‘Who did you invite when?’

(45a) and (i), however, are not exactly synonymous. (i) can only be used in situations where both the listener and the speaker have the same set of points of time in mind corresponding to the question word \text{mikor} (D-linking). Imagine a situation in which the speaker is asking for identification of points of time that he does not know, but wants to know about all of them. In this situation (i) cannot be used, only (47a) below.
(48)  a. (*Minden egyes esetben) kit hívtál meg?
     every individual case-INE who-ACC invited-2SG PV
     ‘Who did you invite in every individual case?’

 b. Kit hívtál meg minden egyes esetben?
     who-ACC invited-2SG PV every individual case-INE
     ‘Who was the (sole) person who you invited at all occasions?’

This clearly shows that it is quantificational items that are ungrammatical in configurations like (45a).

This is highly reminiscent of a set of facts that have been described in the literature under the name intervention effects (Beck 1996, Ouhalla 1996, Pesetsky 1998, Mathieu 1999). It has been noticed before that quantificational elements cannot intervene between positions which form a certain chain. The blocking nature of quantificational elements was first described by Beck (1996), who identified a number of configurations in which quantificational interveners cause ungrammaticality. Among these we find examples with floating quantifiers, multiple questions and scope marking structures. Here I illustrate the first two.

(49)  a. ??Wen hat niemand alles gesehen? [German]
     who-ACC has nobody-NOM all seen
     ‘Who all did nobody see?’

 b. Wen hat Lusie alles gesehen?
     who-ACC has Lusie-NOM all seen
     ‘Who all did Lusie see?’

(50)  a. ??Wen hat niemand wo gesehen?
     who-ACC has nobody-NOM where seen
     ‘Who did nobody see where?’

 b. Wen hat Lusie wo gesehen?
     who-ACC has Lusie-NOM where seen
     ‘Whom did Lusie see where?’

According to Beck (1996) these configurations show that a quantificational element (Q; comprising quantifiers, modals and negation) cannot intervene between the PF and LF site of a moving constituent like alles (49a) or wo (50a):

(51)  *[[...X[[...Q(...[Q[LF...]]]]]]]

What makes (50a) less than acceptable is that wo has to undergo LF-movement to a clause initial position (Aoun, Hornstein and Sportiche (1982), Huang (1982)). This movement is blocked due to an intervening quantificational element. The same LF movement approach is carried over to floating quantifiers like alles (49a) in Beck’s proposal, explaining why we find the same intervention effects with these elements. Note that this LF movement approach to floating quantifiers is an unorthodox approach. It is rather the case that alles here works as a modifier of or restriction
over the moved wh-phrase. The relation between the wh-phrase and its modifier seems to be hindered in exactly the same way the relation between the LF-destination of a wh-phrase and its trace. We will return to the importance of this observation instantly.

After this introduction to intervention effects in general I propose to explain the ungrammaticality of the Hungarian facts (45a,48a) in terms of intervention effects: quantificational items cannot precede wh-items in Hungarian because they are harmful interveners, they destroy the relation between the wh-item and C⁰. The wh-item finds itself in Spec,FocP in overt syntax and establishes a relation with an interrogative C⁰ from there. Thus in (45a) we are dealing with the following situation:

(45a') \( [\text{CP} \leftarrow \text{wh}] [\text{Destination} \text{[FocP \leftarrow \text{kit} \leftarrow \text{wh}]} \leftarrow \text{hivtál meg}] ]? \)

If the relationship between the \( +\text{wh} \) CP and the wh-item cannot be established because of an intervening quantificational element, the derivation crashes.

As far as the nature of the relationship indicated in (45a') is concerned, it can be determined with less certainty. Since there is no overt movement of wh-items to C⁰ in Hungarian, the relationship must be defined as covert movement in the minimalist framework, which leaves no room for LF movement other than feature movement. If this is the case, the intervention effect in (45a, 48a) is due to \( +\text{wh} \) feature movement to C⁰ at LF. This view on intervention effects is also taken by Cheng and Rooryck (2000). They develop an account to explain why French in situ wh-questions also show intervention effects (Chang 1994, Bošković 1998c):

(52) a. Il admire (*toujours) qui?
   he-NOM admire-3SG always who-ACC
   \( \text{‘Who does he always admire?’} \)

b. *Jean ne mange pas quoi?
   Jean-NOM NEG eat-3SG not what-ACC
   \( \text{‘What does John not eat?’} \)

Cheng and Rooryck argue that French in situ questions involve LF feature movement of the \( +\text{wh} \) feature up to C⁰. The reason why quantificational interveners are bad in these sentences is because these items destroy the relation between the final destination of the \( +\text{wh} \) feature (C⁰) and the wh-item left behind, which, by being an indefinite pronoun, basically serves as a restriction over the \( +\text{wh} \) feature. If the wh-item left behind in feature movement can be taken to be a restriction over the \( +\text{wh} \) feature, Beck's (49) and (50) can be explained with reference to the same principle: both contain a moving item with its restriction left behind.

A similar account of intervention effects in English can be found in Pesetsky (1998). He argues that (53b), unlike (53a), contains a quantificational intervener
(negation) (pointed out first by É. Kiss 1986):

(53)  a. Which book did which student read?
     b. *Which book didn't which student read?

According to Pesetsky, in (53b) we are dealing with LF feature movement of the <+wh> feature of the second wh-phrase up to C0, which is destroyed by the presence of negation from a position that c-commands the second wh-item. Pesetsky takes interveners to destroy the relation between an operator (the <+wh> feature) and its restriction (the category left behind). The argumentation for interpreting the effect this way could be supported by the fact that the <+wh> feature itself is independent of the semantic features of the wh-item (person, number, animacy, etc); so when it moves at LF, it leaves all restrictions on the given wh-item behind. This conception brings intervention effects close to Rizzi's (1990) relativized minimality effects and inner island effects in general. The latter, as Szabolcsi and Zwarts (1993) and Honcoop (1998) have argued, have a semantic explanation. While inner island effects are not the same as intervention effects, it is plausible that both have a semantic explanation.

Since the actual explanation for the intervention effect is still very far away, I put this topic aside. What matters for the Hungarian cases in (45a) and (48a) is that they unmistakably exemplify the intervention effect as well. Note that interveners other than quantifiers cannot be shown to have the same effect on wh-items due to the simple reason that they are untestable: negation or modals never raise higher than FocP. Therefore, they can never intervene between the overt position of wh-items in FocP and C0.

2.3.1.2. Other possible scenarios

For completeness' sake it must be mentioned that one could in principle try to account for the ungrammaticality of (45a) in other ways than the one argued for in the previous section. A very simple explanation for (45a) would be to say that wh-items are in fact in a higher projection than DistP in Hungarian (Anna Szabolcsi

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17The most important difference being that inner islands let certain wh-items through, while this is not the case with intervention effects:

(i) Which boy does noone think we should invite? (inner island)
(ii) *Which book didn't which student read? (=53b)

18Note that intervention effects, i.e. the ungrammaticality of quantifiers preceding wh-items, are only present in questions. Other constructions with wh-items do not feature them. (i) illustrates this for wh-items in infinitivals and (ii) for exclamatives:

(i) Volt Péternek mindig mit adni.
    Péter-DAT always what-ACC give-INF
    'There was always something to give to Péter.'
(ii) (Hogy) mindig mennyit eszel!
    always how much-ACC eat-2sg
    'How much you eat all the time!'

The grammaticality of (ii) provides evidence for the claim that exclamative wh-items do not possess a <+wh> feature, or any other feature that needs checking on the C0 head of the clause (see fn. 13 above).
Let us term this position whP:

\[ \text{CP} \quad \text{whP} \quad \text{wh} \quad \text{[\text{DistP} \quad \text{[\text{FocP} \ldots]]}] \]

In this view, wh-items find themselves in one of the functional projections of the C-domain in overt syntax, c-commanding quantifiers and focus. This account, however, would have many disadvantages. First and foremost, it would not be able to immediately explain why wh-items and focus are in complementary distribution in Hungarian (see (1c,d) above). Second, it would be problematic to explain why the preverb is degraded if it appears sentence final, in (55b) (Olsvay 2000):

\[ \begin{align*}
\text{(55a) } & [\text{whP}\text{-}\text{Kit} \text{ mutattál be } [\text{DistP}\text{-}\text{mindig [FocP CSAK PÉTERNEK]]}]]? \\
& \text{who-ACC introduced-2SG PV always only Pétér-DAT} \\
& \text{‘Who was it that you introduced him only to PÉTER?’} \\
\end{align*} \]

\[ \begin{align*}
\text{(55b) } & \text{??*[whP}\text{-}\text{Kit mutattál [DistP mindig [FocP CSAK PÉTERNEK[AspP be ]]}}]]? \\
& \text{who-ACC introduced-2SG always only Pétér-DAT PV} \\
\end{align*} \]

As Chapter 1 has shown, preverb-stranding is necessary in a post-focus position in Hungarian. On the basis of this we expect (55b) to be grammatical, and (55a) to be ungrammatical. What we find, however, is the reverse: (55a) is perfect, as opposed to (55b). This tells us that an approach along the lines of (54) has difficulties explaining the behaviour of wh-items with quantifiers.

Approaches similar to that in (54) have been suggested for languages in which the pattern exhibited by the Hungarian (45) above can be found as well. Romanian is an example at hand. Romanian places wh-items and focus in the same preverbal position in root clauses (Cornilescu 1999):

\[ \begin{align*}
\text{(56) } & \text{??CARTEA cine a cumpărato?} \\
& \text{book-the-ACC who-NOM has bought} \\
& \text{‘Who bought THE BOOK (as opposed to something else)?’} \\
\end{align*} \]

The distribution of quantifiers with wh-items and focus is just like in Hungarian: quantifiers can precede focus but not wh-items (Motapanyane 2000):

\[ \begin{align*}
\text{(57a) } & \text{*Nimeni ce nu-ti va aduce?} \\
& \text{nobody-NOM what-ACC not-you will bring} \\
& \text{‘What will nobody bring you?’} \\
\end{align*} \]

\[ \begin{align*}
\text{(57b) } & \text{Nimeni nici ATENȚIE nu-i dădea.} \\
& \text{nobody-NOM not an attention-ACC not him/her gave} \\
& \text{‘Nobody was paying THE LEAST ATTENTION to him.’} \\
\end{align*} \]

Motapanyane takes the pattern in (57) to indicate that wh-items can (but need not) occupy the same position as focus in Romanian. In unmarked cases, wh-items move to Spec,CP. This would correspond to the pattern in (57), where quantifiers
preceding them are ruled out due to there being no position higher than Spec,CP available for them. In the marked cases, wh-items occupy the same position as focus (giving rise to (56)). In the latter cases Motapanyane hypothesizes that the <+wh> feature of the wh-item raises to C^0 only at the level of LF.

While my analysis of the parallel facts in Hungarian also builds on LF <+wh>-feature movement up to C^0, I think we need not complicate the grammar by allowing the wh-item to occupy two distinct positions in overt syntax. If this approach is on the right track, (57) can be explained with reference to intervention effects as well, keeping the overt position of the wh-item constant, namely in the Spec,FocP position. This is preferred to Motapanyane’s approach for empirical reasons as well. Spec,CP cannot be the overt position of wh-items in Romanian (or for that matter, Hungarian), because topics can freely precede wh-items (Cornilescu 1999):

(58) a. Cartea cine a cumpărato?  [Romanian]  
book-the-ACC who-NOM has bought  
‘Who bought the book?’

b. A könyvet ki vette meg?  [Hungarian]  
the book-ACC who-NOM bought-3SG PV  
‘Who bought the book?’

In view of the facts like (58), an account in terms of intervention effects is to be preferred for Romanian as well. If I am right in assessing the data, the pattern in (57) argues for there to be LF <+wh> feature movement to C^0 in Romanian, just as in Hungarian. Wh-items establish a relation with a <+wh> C^0 head in both languages.

2.3.2. Pied-piping of clausal material
In this section I turn to the phenomenon of pied-piping in clausal structures. Close examination of data with wh-items in different types of clauses will lead to the conclusion that the checking of the <+wh> feature on wh-items in Hungarian takes place against C^0 and is necessitated partly by the need of the wh-items themselves. This finding is in line with recent findings of Simpson (1996, 2000), contrary to claims in Chomsky (1995).

The argumentation will be based on a split in the behaviour of focus and wh-items when it comes to pied-piping of clausal material: focus never pied-pipes the clause it occurs in into a higher clause, while wh-items do if they are found in a clause that does not have a <+wh> C^0 head. The fact that clausal pied-piping only occurs in clauses which do not contain a <+wh> C^0 suggests that wh-items need the presence of a <+wh> C^0 to be licensed. If they do not find an interrogative C^0 head in the clause they occur in, they have to pied-pipe that clause into a higher clause that possesses a <+wh> feature on C^0. This phenomenon provides evidence for my claim that the <+wh> feature on wh-items is related to C^0, and not to Foc^0, since, as I will show, the latter is available in the clauses which undergo pied-piping.

The type of clauses examined in this section will be relative clauses: finite and participial ones. These are the only clausal constituents in Hungarian that can as one
item undergo massive movement and appear in preverbal operator positions. Argumental *that*-clauses cannot appear in these positions for some ill-understood reason, which might have to do with intonation (Kenesei 1994):

   only a-who-NOM know-3SG Péter-ACC come-POT-3SG PV  
   ‘Only those who know Péter can come in.’

   only the Péter-ACC knowing girls-NOM come-POT-3PL PV  
   ‘Only those girls knowing Péter can come in.’

c. *[Hogy ismered Péter] mondtad meg nekem.  
   that know-2SG Péter-ACC told-2SG PV DAT-1SG  
   ‘What you told me was that you know Péter.’

In (59a) we see a headless relative clause in the Spec,FocP position of the matrix clause: the result is a bit strained, but grammatical. In (59b) we find a headed participial relative clause in the same position. In (59c), the impossibility of having a *that*-clause in the Spec,FocP position is illustrated.

2.3.2.1. Focus in clausal pied-piping

Massive clausal pied-piping is a phenomenon that is known from the syntactic literature on Basque (Ortiz de Urbina 1989) and Imbabura Quechua (Cole 1982). In Basque, focal pied-piping of clauses is illustrated by the following example (Ortiz de Urbina 1993):

(60) [JON etorri den], galdetu dut t.  
    JON come AUX-COMP asked-1SG have  
    ‘I have asked whether it is Jon that has come.’

Basque is like Hungarian in that it has a common preverbal position for both *wh-*items and focus, to which the verb is necessarily right-adjacent (Ortiz de Urbina 1989). The embedded clause in (60) occupies the focus position of the matrix clause, which can be seen from the fact that the matrix verb has to immediately follow the embedded CP. Since the embedded CP contains a focused element, (60) can be taken to be a case of clausal pied-piping with focus.

In a footnote Ortiz de Urbina notes that (60) is not the only pattern that we find with the embedded clause *JON etorri den*. This clause can also be in the postverbal position. In this case, the author suggests that the embedded CP is extraposed from a preverbal focus position to a postverbal focus position:

(61) Galdetu dut [JON etorri den],  
    asked-1SG have JON come AUX-COMP  
    ‘idem’
I am not in the position to evaluate the second claim — whether (61) is an instance of an embedded clause in focus is difficult to show. I think nevertheless that the existence of (61) shows that pied-piping in (60) is optional. There is nothing that would force pied-piping in (60).

In what follows I will show that in Hungarian in cases like these, pied-piping is not forced to obtain either. That is, if a clause contains a focus inside it, that clause is never forced to move as a whole into the matrix focus position. Consider the following examples. (62) shows the behaviour of a finite relative clause, (63) that of a participial clause.

(62) a. ?(Csak) [DPPC aki [FP PÉTERT ismerő]] jöhet be.
   (only) a-who-NOM Péter-ACC know-3SG come-POT-3SG PV
   ‘Only those who know PÉTER can come in.’
   b. Nem jöhet be [DPPC aki [FP PÉTERT ismerő]].
   not come-POT-3SG PV a-who-NOM Péter-ACC know-3SG
   ‘Those who know PÉTER cannot come in.’
   c. HOLNAP jöhet be [DPPC aki [FP PÉTERT ismerő]].
   tomorrow come-POT-3SG PV a-who-NOM Péter-ACC know-3SG
   ‘It is tomorrow that those who know PÉTER can come in.’

   the Péter-ACC knowing girls-NOM come-POT-3PL PV
   ‘Only those girls knowing PÉTER can come in.’
   b. Nem jöhetnek be [DP a [FP PÉTERT ismerő] lányok].
   not come-POT-3PL PV the Péter-ACC knowing girls-NOM
   ‘Those girls who know PÉTER cannot come in.’
   c. HOLNAP jöhetnek be [DP a [FP PÉTERT ismerő] lányok].
   tomorrow come-POT-3PL PV the Péter-ACC knowing girls-NOM
   ‘It is tomorrow that those girls knowing PÉTER can come in.’

The (a) examples have the relative clause (finite and participial respectively) in the matrix FocP, the (b) and (c) examples have it in a postverbal position. As is clear from the (b) and (c) examples, movement of the focus-containing relative clause into the matrix FocP is not necessary: the specifier of the matrix FocP can be left empty (b) or filled with other focused items (c).10 This shows that movement in the case of the (a) examples is not a case of focus pied-piping. If it were, it would necessarily have to result in checking of the matrix FocP: the embedded focus would have to check its features against that on the matrix Foc⁰ head. In this case, however, the (b)

10 It could be objected that the postverbal position which hosts the relative clauses in the (b) and (c) examples is a postverbal focus position (for postverbal focus constituents, see Alberti and Medve 2000). Postverbal focus constituents, however, are only licensed when the preverbal focus position is also filled, i.e. in the (c) examples. Therefore, to show that the clauses are not focused in (62/63), the (b) examples are crucial: negation does not license a postverbal focus, as (i) shows.

(i) *Nem jöhet be PÉTER.
   not come-POT-3SG PV Péter-NOM
   ‘It is Péter who cannot come in.’
and (c) examples should be ungrammatical, due to the fact that in these examples, \(<+f>\) checking does not take place. Since these examples are grammatical, they illustrate the point that a focused item does not pied-pipe the relative clause it is sitting in into the matrix FocP in Hungarian.

The reason why focus in relative clauses does not need to check its \(<+f>\) feature in the matrix FocP is that within the relative clause itself there is a FocP available for checking the feature on the focused item as a result. The checking of the \(<+f>\) feature on the focus constituent can be done locally.

That FocP is projected in relative clauses we know independently. In finite relatives, it is observable from preverb stranding inside the relative clause:

(64) \[\left(\left[\text{DP}/\text{CP} \right] \left[\text{FP} \ \text{PÉTERT} \ hívta \ meg \ ]\right]\right)\]
whom-NOM Péter-ACC invited-3SG PV
‘who invited PÉTER’

In the case of participials, the presence of a FocP position is not observable via preverb stranding, since in these clauses preverbs do not strand. Still, focus tends to be directly adjacent to the verb in participials as well:

(65) a. \[\left(\left[\text{DP}/\text{Az} \left[\text{partalmát} \ [\text{FP} \text{KÉSSEL evő]}\right]\right] \text{gyerek}\left[\text{vágták meg \ magukat.}\right]\right)\]
the apple-ACC knife-INS eating children-NOM cut PV themselves-ACC
‘The children who ate apples with KNIVES who cut themselves.’

I take (65) to indicate that focusing inside a participial involves movement to some FocP position as well.

Since argumental clauses cannot ever appear in the matrix FocP position, we cannot test whether pied-piping with argumental clauses is possible or not. I take it, however, that similarly to relative clauses, since argumental clauses contain the projection of FocP, pied-piping of the whole clause by an embedded focus would never be forced since the requirement of this focus can be satisfied internal to the embedded clause.

### 2.3.2.2. Wh-items in clausal pied-piping

In Basque, embedded questioning results in clausal pied-piping, just as focusing does. In the case of wh-items, however, optionality of movement is never exhibited (Ortiz de Urbina 1993), unlike with focus:

(66) a. \[\left[\text{CP} \left[\text{Nor etorriko d-ela bihar]\ left]\ esan diozu Mireni? \right]\right)\]
who comes aux-that tomorrow said aux Mary-DAT
‘Who did you tell Mary that comes tomorrow?’

b. \*\[\text{esan diozu Mireni} \left[\text{CP} \left[\text{nor etorriko d-ela bihar]\ left]\right]\right)\]
said aux Mary-DAT who comes aux-that tomorrow
The Hungarian pattern is similar to Basque. If we replace the focused items in (62/63) with wh-items, only the (a) structures are grammatical. The others are only acceptable as echo questions:

(67)  a. \( ?[\text{DP} \text{CP} \text{Aki \ [FP kit ismer]] jöhet be?} \)
    \[a-\text{who-NOM} \text{ who-ACC} \text{ know-3SG come-POT -3SG} \text{ PV} \]
    ‘Who is such that the person who knows him can come in?’
  
b. *Nem jöhet be \([\text{DP} \text{CP aki \ [FPkit ismer]]}\],
    \[\text{not come-POT-3SG} \text{ PV a-\text{who-NOM} who-ACC know-3SG} \]
    ‘Who is such that the person who knows him cannot come in?’
  
c. *HOLNAP jöhet be \([\text{DP} \text{CP aki \ [FPkit ismer]]}\],
    \[\text{tomorrow come-POT-3SG} \text{ PV a-\text{who-NOM} who-ACC know-3SG} \]
    ‘Who is such that the person who knows him can come in TOMORROW?’

(68)  a. \([\text{DP} \text{[FPmilyen fiúkat ismerő] lányok]] \text{jöhetnek be?} \)
    \[\text{what boys-ACC knowing girls-NOM come-POT-3PL PV} \]
    ‘What kind of boys are such that girls who know them can come in?’
  
b. *Nem jöhetnek be \([\text{DP} \text{[FPmilyen fiúkat ismerő] lányok]}\],
    \[\text{not come-POT-3PL PV what boys-ACC knowing girls-NOM} \]
    ‘What kind of boys are such that girls who know them cannot come in?’
  
c. *HOLNAP jöhetnek be \([\text{DP} \text{[FPmilyen fiúkat ismerő] lányok]}\],
    \[\text{tomorrow come-POT-3PL PV what boys-ACC knowing girls-NOM} \]
    ‘What kind of boys are such that girls who know them can come in TOMORROW?’

We see that movement of the relative clause into the matrix clause is obligatory if the relative contains a wh-item: the clauses in this case cannot stay in a postverbal position, they have to front. From this, we can be sure that we are dealing with obligatory pied-piping in (67a) and (68a).

The explanation for this must be the fact that internal to the embedded relative CP the wh-items are not properly licensed. This is the result of there being no \(C^0\) head with a <+wh> feature. In the case of finite relatives this is due to the CP being specified for other features having to do with relativization\(^{20}\) like phi-features which are in agreement between the head of the relative and the relative pronoun. In participials we do not find a <+wh> CP presumably because the whole CP projection is lacking.

That is, the pattern in (62/63) versus (67/68) shows us that the presence of a <+wh> \(C^0\) is crucial for the licensing of wh-items in Hungarian. Lack of a <+wh> \(C^0\) in the clause where wh-items find themselves results in clausal pied-piping of the structure into a higher, <+wh> clause. These facts clearly show that wh-items in Hungarian need to establish a relationship with a \(C^0\) head that is suitably specified,

\(^{20}\)Note that in Hungarian, relative pronouns do not occupy the Spec,CP position, but some position lower than CP (Kenesei 1992a).
i.e. that possesses a $<+\text{wh}>$ feature.

### 2.3.2.3. The problem of overt movement in clausal pied-piping with $\text{wh}$-items

While the observed pattern in Hungarian is clear and points to the conclusion reached in the previous section, we have to mention that it raises important questions with respect to the mechanism of $\text{wh}$-pied-piping of clauses.

Observe again the cases of $\text{wh}$-pied-piping from above. Here I repeat the examples indicating those features in the structure that undergo checking:

\[(67a') \quad ?[\text{CP}<\text{wh}>][\text{FocP}[\text{aki} \quad \text{if}|\text{FocP}<\text{f}>\quad \text{kit}<\text{f},<\text{wh}>\quad \text{ismer}]\quad \text{jóhet} \quad \text{be]?}\]
\[
\quad a\text{-who-NOM who-ACC} \quad \text{know-3SG come-POT-3SG} \quad \text{PV}
\]
\[\text{‘Who is such that the person who knows him can come in?’}\]

\[(68a') \quad [\text{CP}<\text{wh}>][\text{FocP}[[\text{FocP}<\text{f}>\quad \text{Milyen} \quad \text{fiúkat}<\text{f},<\text{wh}>\quad \text{ismerő}] \quad \text{lányok} \quad \text{jóhetnek be]?}\]
\[\text{what boys-ACC} \quad \text{knowing girls-NOM come-POT-3PL} \quad \text{PV}\]
\[\text{‘What kind of boys are such that girls who know them can come in?’}\]

As the verb-preverb order in the matrix clause indicates, the matrix FocP position is filled by the relative clause in both cases. It is, however, not clear what triggers movement into this position. FocP can only check $<+\text{f}>$ features in Hungarian. If movement of the clausal material were feature-driven, the motivation for this could only be some requirement of the matrix Foc$^0$ head. But the questions is, what $<+\text{f}>$ feature can the matrix Foc$^0$ check? One way of ensuring $<+\text{f}>$ checking on matrix Foc$^0$ would be to say that the moving clause as a whole (a DP/CP category) possesses a $<+\text{f}>$ feature. This, however, could not be ensured in a principled way, since the distribution of this clausal $<+\text{f}>$ feature would be mysterious: as we saw in the previous section, a feature that would attract the whole clause to the preverbal focus position cannot be shown to be necessarily present on clauses that contain a focus — why would it be obligatorily present with clauses containing a $\text{wh}$-item?

Therefore the only possible scenario left is one in which it is a feature of the embedded $\text{wh}$-item that gets checked in the matrix FocP, after percolation takes place. This must involve rechecking the $<+\text{f}>$ feature on the embedded $\text{wh}$-item, since the embedded $\text{wh}$-item checks its $<+\text{f}>$ feature internal to the embedded clause as well, namely in the local FocP where it raises overtly. The rechecking of this feature is theoretically possible, since it is $[+\text{interpretable}]$ (see section 2.2 above) and therefore does not disappear after checking.

The motivation for the clausal movement step, however, remains mysterious. And so is the projection of the matrix FocP: nothing requires that FocP should be projected in the matrix clause to begin with.

To explain why the projection of FocP and clausal movement into its specifier position takes place nonetheless, I assume that these are inevitable for the licensing of the embedded $\text{wh}$-items. That is, without clausal movement into the matrix Spec,FocP, the $<+\text{wh}>$ feature on the embedded $\text{wh}$-item cannot be licensed and the derivation crashes.

I propose that clausal movement to the matrix FocP is due to the fact that $\text{wh}$-
items in Hungarian must be in A-bar positions overtly in the clause where they get licensed. That wh-items need to be in A-bar positions in the clause where they get inserted has been recognized long ago (É. Kiss 1987). What I add to this requirement is that A-bar positioning is relevant in all clauses where the wh-items are licensed. In our examples, they check a <+t> feature internal to the relative clause, which requires A-bar positioning internal to the relatives; and they check <+wh> in the matrix clause, which requires A-bar positioning in the matrix clause. Since the wh-item itself cannot raise out of the relative clause in overt syntax (due to island-violations), it can only fulfil the second requirement if it pied-pipes its clause into the matrix A-bar Spec,FocP position.

An indirect piece of evidence for this claim comes from Japanese. Japanese is argued to have clausal wh-pied-piping in examples like those in (67a,68a) only at the level of LF (Nishigauchi 1990). (69) is a sentence where this is the case:

(69) [[[[Spec CP Dono ronbun-o kaita] hito]-ga itiban zuumei desu-ka?] [Japanese] which paper-ACC wrote person-NOM most famous is-Q ‘The person who wrote which paper is the most famous?’

Nishigauchi argues that (69) involves LF-movement of the entire relative DP/CP into the matrix Spec,CP position. (In the minimalist program this claim has to be rethinkd in the light of the difference between category movement and feature movement at LF.) Putting technical details aside, what is important in an example like (69) is that it does not involve overt movement of the relative clause of any sort, unlike the Hungarian cases, where the relative has to front to Spec,FocP in overt syntax. The difference between Japanese and Hungarian is that Japanese wh-items are in situ, that is, they are found in A-positions in overt syntax. I take it that this explains the difference between (69) and the comparable Hungarian examples: Japanese clausal movement need not be overt, because wh-movement is not overt either. Hungarian clausal movement is done in overt syntax because what motivates it, the licensing of wh-items, has a necessary A-bar component in overt syntax as well: the fronting into Spec,FocP.

2.3.2.4. Licensing requirements of wh-items
The previous sections have shown that wh-items induce clausal pied-piping of their container clause if there is no C⁰ with a <+wh> feature found in the clauses within which they appear. In this behaviour they are fundamentally distinct from focused items: focus does not force massive overt pied-piping into a higher clause.

The requirement of wh-items that they need to be licensed by a <+wh> C⁰ is argued for on the basis of different languages by Simpson (1996, 2000). He shows that wh-items themselves need to license their <+wh> feature via a <+wh> C⁰. The arguments he presents for this claim come from Iraqi Arabic and Hindi. These languages exhibit a similar pattern when it comes to the licensing of wh-items.

In Iraqi Arabic and Hindi wh-items are well-formed in situ both in root and in non-tensed embedded clauses. In situ wh-items, however, are ungrammatical in
tensed embedded clauses that do not contain a <+wh> C⁰. Here I only exemplify the situation one finds in embedded clauses:

(70)  
a. Mona raadat [tijbir Su’ad [tisa’ad meno]]? [Iraqi Arabic]  
Mona wanted force-INF Su’ad help-INFINF who  
‘Who did Mona want to force Su’ad to help?’

b. *Mona tsawwarat [Ali ishtara sheno]  
Mona thought Ali bought what 
intended: ‘What did Mona think Ali bought?’

(71)  
Ram-ERG Mohan-ERG whom see-INF for told  
‘Who did Ram tell Mohan to look at?’

b. *Raam-ne kaha [ki kOn aayaa-hE]?  
Ram-ERG said that who has-come 
intended: ‘Who did Ram say has come?’

To explain the difference between the finite and infinite embedded clauses, one cannot argue that wh-items are not licensed in finite embedded clauses because they cannot move out of the finite clause, since overt movement out of finite clauses is possible in both languages:

(72)  
Shenoi tsawwarit Mona [Ali ishtara ti] [Iraqi Arabic]  
what thought Mona Ali bought  
‘What did Mona think Ali bought?’

(73)  
kOni Raam-ne kaha [ki ti aayaa-hE]? [Hindi]  
who Ram-ERG said that has come  
‘Who did Ram say has come?’

Since overt movement of the wh-items is grammatical, it cannot be the case that the same movement would be blocked at LF, if we follow Chomsky (1993,1995) in assuming that syntactic derivations are uniform throughout.

The ungrammaticality of (70b/71b) leads Simpson to two important conclusions: (i) there is some formal licensing property of wh-items that needs satisfaction prior to spellout in the above languages; (ii) the <+wh> feature carried by wh-items are in need of licensing. The latter claim follows from the fact that sentences like (70a/71a), where the wh-phrases do not raise to the matrix <+wh> C⁰, are well-formed. If C⁰ did need to check its <+wh> feature before spellout, these sentences (and the corresponding root clauses not exemplified here) would be ungrammatical, contrary to fact.

As we have seen, the behaviour of Hungarian wh-items argues for the conclusion in (ii) as well: the wh-items themselves need to be licensed by a <+wh> C⁰. In Hungarian it is not the in situ/ex situ nature of the wh-items that indicates this, but the fact that wh-items are categorically ungrammatical in clauses where there is no <+wh> C⁰, unless further movement into a <+wh> clause occurs. The two
phenomena, however, seem to be a reflex of the same requirement: licensing by a $<+\text{wh}>C^0$.

2.3.3. Scope marking
Beside relative clauses, argumental clauses also provide us with evidence that wh-items take part in a checking relationship with a suitably specified $C^0$ head. What indicates this in the case of argumental clauses is not massive clausal pied-piping, but the occurrence of scope marking structures.

In this section I discuss scope marking (both with focus and wh-items) in Hungarian for the following two important reasons:

(i) It can be shown that focus and wh-items differ in that scope marking is available in the matrix clause if the embedded clause contains a wh-item, but not when it contains a focus.

(ii) On the basis of (i) and the behaviour of finite relative clauses it can be shown that what is known as wh-scope marking achieves the same goal as clausal wh-pied-piping described in the last section. They are conditioned in exactly the same way: they obtain when a wh-item is not licensed in its own clause. This way, the existence of scope marking structures provides further evidence for my analysis of wh-movement in Hungarian.

2.3.3.1. Focal scope marking
Argumental clauses do not have great freedom of movement in Hungarian: the matrix focus position is not available for them (cf. 59c). Focusing of the embedded clause, however, is possible via other means: via the sentential expletive az ‘that’ appearing in the matrix FocP position:

(74) AZT mondtad meg nekem [hogy meghivtad Pétert].
    that-ACC said-2SG PV DAT-1SG [that PV-invited-2SG Péter-ACC]  
    ‘What you told me was that you invited Péter.’

When the sentential expletive is focused in the matrix clause, it provides focus interpretation to the embedded argumental clause as a whole (Kenesei 1994).

In the exact same configuration as (74), if the embedded clause also contains a focus, the interpretation of the sentence becomes more complex. In this case, we get focus inside focus: the embedded clause is focused, and so is the embedded focus inside this clause. It has been pointed out by Kenesei (1998a) that these kinds of sentences are ambiguous between a reading where the embedded focus has local scope, and one in which the embedded focus has matrix scope:

(75) AZT mondtad meg nekem [hogy PÉTER hivtad meg].
    that-ACC said-2SG PV DAT-1SG [that Péter-ACC invited-2SG PV]  
    a. ‘What you told me was that you invited PÉTER.’
    b. ‘It was Péter whom you told me you invited.’
Reading (75b) is claimed to be the result of scope marking being operative: the matrix sentential expletive “stands in” for the embedded focus and provides matrix scope for it.

That is, on the reading (75b), the sentence is claimed to have the same logical structure as (76), where Péter moves to the matrix focus position overtly thereby taking scope from the matrix clause. This sentence consequently has only one reading:

(76) PÉTERT; mondta nekem [hogy meghívtad t.]  
Péter-ACC said-2SG DAT-1SG that invited-2SG  
‘It was Péter whom you told me you invited.’

Supporting evidence for the claim that (75) does have a meaning which is the same as that of (76) comes from the following set of facts, which Kenesei (1998a) attributes to Szabolcsi (1997):

(77) a. AZT akarta sok diá [hogy HÁROM TANÁR vizsgázta].  
that-ACC wanted-3SG many student-NOM that three teacher-NOM examine-SUBJ-3SG  
‘What many students wanted was the three teachers examine them.’

b. HÁROM TANÁRT; akart sok diá [hogy t; vizsgázta].  
three teacher-ACC wanted-3SG many student-NOM that examine-SUBJ-3SG  
‘It was three teachers that many students wanted to examine them.’

c. SOK DIÁK akarta azt [hogy HÁROM TANÁR vizsgázta].  
many student-NOM wanted-3SG that-ACC three teacher-NOM examine-SUBJ-3SG  
‘It was many students who wanted three teachers to examine them.’

The property we are interested in is whether the sentences in (77) allow for a distributive and collective reading of sok diá ‘many students’ with respect to három tanár ‘three teachers’. In the (a) and (b) examples, both are possible, while in the (c) example, only the distributive reading is available. According to Szabolcsi, whenever HÁROM TANÁR has embedded scope, unambiguous distributive reading results, since in this case, sok diá ‘many students’ c-commands the numeral. The availability of a collective reading, on the other hand, must be the result of HÁROM TANÁR ‘three teachers’ having scope over the matrix subject. The fact that both (77a), which is the same construction as (75) above, and (77b) are possible with a collective construal indicates that in both cases, matrix scope is available for HÁROM TANÁR. For (77a), this means that we are dealing with a scope marking construction, since it is the sentential expletive that occupies the matrix scopal position in it.

These data, however, are inconclusive to show that in (77a) the embedded focus has matrix scope. The reason is that this test does not give the expected result even in
the case of overt extraction (77b). (77b) suggests that it is possible for the moving
item to not acquire matrix scope although it sits in the matrix clause in overt syntax.
However, recall (76) from above: overt extraction can only be interpreted with
matrix scope for the moving item. The two examples do not deliver the same results
as far as scopal properties are concerned. Since native judgements can only interpret
(76) with a matrix reading for the raised object, we must conclude that the
distributivity test is incapable of showing what we are after: it cannot be used to
detect scope relations with focus.21

The “distributive scope” argument being the only argument for focal scope
marking in the literature, one might wonder whether there is evidence that focal
scope marking exists at all. I believe it does not.

The lack of matrix focal scope in a sentence like (75) is easy to show with respect
to factive verbs, which are also scopal constituents. With factive predicates we can
show that a construction like (75) cannot have the interpretation of (76). The
following two sentences can be used to illustrate this point.

(78) PÉTER felejtettem el [hogy meghívtad],
Péter-ACC forgot-1SG PV that PV-invited-2SG,
nem BÉLAT felejtettem —el [hogy meghívtad].
not Béla-ACC (forgot-1SG PV that PV-invited-2SG)
‘It was about Péter that I forgot that you invited him, and not about Béla.’

(79) #AZT felejtettem el [hogy PÉTER hívtad meg],
that-ACC forgot-1SG PV that Péter-ACC invited-2SG PV,
nem AZT [hogy BÉLAT hívtad meg].
not that-ACC that Béla-ACC (forgot-2SG PV)
‘What I forgot was that it was Péter whom you invited and not that it was
Béla.’

(78) contains overt extraction. It is a non-contradictory sentence, with the
interpretation in which PÉTER contrasts with BÉLA: Péter was the one about whom I
forgot that you invited him. (79) on the other hand, which contains the alleged focal

21That distributive scope does not translate into “normal” scope is not unexpected. It has been shown
that distributive scope deviates from existential scope (Ruys 1992, Reinhart 1995). Consider for example
the following sentence together with its possible interpretations:

(i) If three relatives of mine die, I will inherit a house.
a. ‘there are three relatives, such that [if they die → I inherit a house]’
b. ‘[if three relatives die → I inherit a house]’
c. ‘there are three relatives, that for each [if he dies → I inherit a house]’

Here we see that the numeral three relative of mine can scope inside or outside the conditional
(existential scope), but irrespective of whether it scopes inside or outside the conditional, it cannot
induce variation over the number of houses. If all kinds of scopes were associated with one scope
position, we would expect that when three relatives scopes outside of the conditional, it also scopes over
a house so that it will be able to induce referential dependence on that, that is, I could inherit three
houses. This example shows well that distributive scope should be treated separately from existential
scope. Maybe the scope of focus falls under some kind of existential scope as well, explaining the
discrepancy between (76) and (77b).
scope marking construction, only has a contradictory reading, provided the embedded CPs refer to the same event. In this case, the sentence cannot have a non-contradictory interpretation. Why is this so? Contrastive focus inside the embedded clause, being exclusive, implies that in a situation where ‘PÉTER comes’ is true, ‘BÉLA comes’ cannot be true. However, the factivity of the predicate requires that both propositions are true. That is, focus requires one of them to be false, factivity requires both to be true. This leads to a contradiction. (78) does not have a contradictory reading, even if the embedded clauses refer to the same event, since in these cases the contrasted clauses of the form ‘x was whom I forgot you invited’ are not embedded under a matrix factive predicate: focus has scope over the factive verb. The fact that (79) crucially does not have a non-contradictory reading shows that it does not have a reading in which the embedded focus takes matrix scope.  

With the aid of factive predicates we have shown that embedded focus in the alleged scope marking strategy does not have matrix focus scope, i.e. scope marking does not exist with focused constituents. The matrix focused expletive provides focus interpretation for the embedded clause under all circumstances, and never just for one constituent included in the clause. That is, the availability of and a requirement for a matrix focused expletive is not linked to the internal properties of the embedded clause — clauses with or without an embedded focus can be freely linked to a matrix focus expletive.

2.3.3.2. Wh-scope marking
As far as wh-scope marking is concerned, the situation is different from the one with focus. It can be shown that the presence of an embedded wh-item determines the presence of an expletive in the matrix, unlike what we have found with focus in the previous section. As we will see, wh-scope marking is only possible with <-wh> embedded clauses. This is due to the fact that wh-items are not fully licensed in these clauses, unlike in <+wh> clauses, where they are. The distribution of wh-scope marking constructions therefore supports my analysis of wh-movement in Hungarian.

Wh-scope marking, parallel to the alleged scope marking construction with focus, involves a necessary wh-scope marker phrase in a matrix clause linked to a wh-item in an embedded clause. The scope marker we find with Hungarian argumental clauses is mI ‘what’, which corresponds to the wh-item over propositions, and is formally the wh-version of the clausal expletive az ‘that’.

Interestingly, scope marking is constrained in the syntax in the following ways.

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22One could doubt the applicability of my test with factive predicates by suggesting that matrix scope for the embedded item is missing in (79) due to the fact that factive predicates never take part in scope marking. Note, however, that while the latter is true for wh-scope marking in German, in Hindi and Hungarian wh-scope marking is fine across factive predicates (Horvath 1997) (although we do find some variation among speakers):

(i) Mit sajnálsz, hogy hogy viselkednek a gyerekek?
what regret-2SG that how behave-3PL. the children

‘What do you regret? How do the kids behave?’

Since scope marking with wh-phrases is fine with factives, there is no reason why it could not be fine with focus.
First of all, it is restricted to cases where the embedded clause is a \(-wh\) clause. If the \(wh\)-item is embedded in a \(+wh\) clause, the matrix clause cannot appear with a scope marker:

\[(80)\]

\(a\). Mit gondolsz [hogy kit hivott meg Mari]?  
    what-ACC think-2SG that who-ACC invited-3SG PV Mari-NOM  
    ‘What do you think, who did Mari invite?’

\(b\). *Mi érdekel [hogy kit hivott meg Mari]?  
    what-NOM interest-3SG that who-ACC invited-3SG PV Mari-NOM  
    ‘What interests you, who did Mari invite?’

\((80a)\) contains a \(-wh\) embedded clause, \((80b)\) a \(+wh\) one. Scope marking is only possible with the former.

Secondly, scope marking is not only allowed in \(-wh\) embedded clauses, but it is obligatory if these contain a \(wh\)-item \((81a)\). If the embedded clause does not contain a \(wh\)-item, scope marking is impossible \((81b)\):

\[(81)\]

\(a\). *Azt gondolom [hogy kit hivott meg Mari].  
    that-ACC think-1SG that who-ACC invited-3SG PV Mari-NOM  
    ‘What do you think, who did Mari invite?’

\(b\). *Mit gondolsz [hogy meghívta Mari Péter].  
    what-ACC think-2SG that invited-3SG Mari Péter-ACC

These facts indicate that scope marking (i.e. the availability of a scope marker in the matrix clause) is syntactically conditioned: what determines its occurrence is the nature of the embedded clause and the presence of an embedded \(wh\)-item. This shows that \(wh\)-scope marking does not only function to mark scope for an embedded item, since then, most crucially \((80b)\) would be expected to be possible as well. Rather, scope marking is a strategy that is needed to save a derivation that would crash otherwise: it licenses a \(wh\)-item that would otherwise fail to get licensed.

Beside the observed pattern in \((80/81)\), other arguments can also be found in favour of this view. I list three such arguments here.

The first concerns the lack of focal scope marking. As I have shown in the previous section, scope marking is not available with focus. The reason why this is important is because focus is also scopal, just as \(wh\)-phrases. If scope marking is a process that assigns matrix scope to an embedded item, without being constrained by syntax, it is expected that it can involve focus as well, since focus and \(wh\)-items are strongly parallel. The fact that it does not show up with focus shows that it does not purely serve the purpose of scope assignment.

A second reason to claim that scope marking is a construction that saves embedded \(wh\)-items that would otherwise fail to get licensed, comes from the behaviour of finite relative clauses. Section 2.3.2.2 has shown that if these contain a \(wh\)-item, and they are headless, they have to pied-pipe into the matrix FocP position. Consider \((67a)\) repeated here:
TIE SYNTAX OF WH-MOVEMENT

(67) a. ¿[DP/CP] Aki [FP kit ismer]] jöhet be?
   a-who-NOM who-ACC know-3SG come-POT-3SG PV
   ‘Who is such that the person who knows him can come in?’

(67a), however, is not the only grammatical sentence with a wh-item inside the relative. Beside (67), there is another way of licensing this wh-item. It is only available in case the relative clause is headed. I illustrate it in (82):23

(82) Ki jöhet be [DP/CP aki [FP kit ismer]]?
    who-NOM come-POT-3SG PV a-who-NOM who-ACC know-3SG
    ‘Who is such that the person who knows him can come in?’

(82) differs from (67a) in that in this case it is not the whole relative clause that appears in the matrix focus position, but a wh-item, which corresponds to the head of the relative clause. This head is a particular lexical item: namely a demonstrative pronoun. It can be spelled out with any free relative (Citko 1999):

(83) Bejöhet [DP az [CP aki [FP Pétert ismer]]]
    PV come-POT-3SG that-NOM a-who-NOM Péter-ACC know-3SG
    ‘Those who know Péter can come in.’

Now, as is shown in (84), if (83) were to contain a wh-item in the embedded clause, the use of the demonstrative az ‘that’ would be ungrammatical. This recalls the behaviour of (81a) above:

(84) *Az jöhet be [CP aki [FP kit ismer]]
    that-NOM come-POT-3SG PV a-who-NOM who-ACC know-3SG
    ‘Who can come in, those who know whom?’

(81) a. *Azt gondolod [hogy kit hivott meg Mari]
    that-ACC think-2SG that who-ACC invited-3SG PV Mari-NOM

Instead of az, a wh-item has to spell out the head of the relative clause — this is ki in (82). This shows that the presence of the wh-item ki ‘who’ in (82) is crucial: without this item the derivation crashes. This is exactly like the situation we find with argumental clauses. Therefore we can say that ki ‘who’ in (83) is a scope marker, just like mit is in (80a) — without this item, the sentence would be ungrammatical.

This exact parallel between argumental clauses and relative clauses proves that (82) is also a case of scope marking, this time with a relative clause. We know, however, that (82) is not the only grammatical sentence where a wh-item is found

23Examples like (82) even figure in written Hungarian (Élet és irodalom, 10.12.1999):

(i) ... mégis vannak nékik. Hogy aktivak, az biztos, csakhogy ki az, aki mit csinál?
    yet are nazi’s-NOM that active-PL that-NOM certain but who-NOM that a-who-NOM what-ACC do-3SG
    ‘...yet nazi’s exist. That they are active is certain, but who is it (=nazi), who is doing what?’
embedded in a relative clause. We also get a grammatical result when the relative clause pied-pipes into the matrix clause as in (67a). Thus, \textit{wh}-scope marking and \textit{wh}-pied-piping seem to achieve the same goal: both can license a \textit{wh}-item inside a relative clause. The choice between the two strategies depends on whether the relative is headed or not: if it is headed, this head has to be a \textit{wh}-phrase moved to FocP (this way we get scope marking); if it is not headed, the whole clause must move to the matrix FocP (this is pied-piping). Crucially, these and only these two structures are grammatical if the relative contains a \textit{wh}-item.

Finite relative clauses are therefore \textit{instrumental} in showing that \textit{wh}-pied-piping out of clauses and scope marking are actually two sides of the same coin. In the case of finite relatives (and only here), the two strategies live side by side, exclusively in cases when the relative contains a \textit{wh}-item. This proves that \textit{wh}-scope marking is also syntactically conditioned, just as clausal pied-piping.

The third argument for \textit{wh}-scope marking being a \textit{wh}-licensing strategy comes from the behaviour of noun complement clauses. These clauses are also \textit{<--wh>} clauses if the noun that takes them as a complement does not select a \textit{<+wh>} clause. We expect therefore that embedded \textit{wh}-items will be ungrammatical in this context. This expectation is born out:

\begin{itemize}
  \item[(85)] a. *You did not hear the rumour [who Mary invited].
  \item[(85)] b. *Nem hallottad a pletyklát [hogy kit hivott meg Mari].
\end{itemize}

Not heard-2SG the rumour-ACC that who-ACC invited-3SG PV Mari-NOM

‘Who was such that you did not hear the rumour that Mari invited him?’

However, there are ways of saving these sentences. One is applying pied-piping to the whole complex NP into the matrix licensing position. This is found in Basque (Ortiz de Urbina 1993):

\begin{itemize}
  \item[(86)] [DP[CPNor heldu d-en ] zurrumurrua ]entzun duzu?
\end{itemize}

who arrived aux-comp rumour heard have

‘The rumour that who has arrived have you heard?’

The other way is to have a scope marker in the matrix clause, i.e. to \textit{wh}-move the contentful NP head. This is found in Hungarian:

\begin{itemize}
  \item[(87)] Milyen pletykát, hallottal [DPt; [CPhogy ki érkezett]]?
\end{itemize}

what rumour-ACC heard-2SG that who-NOM arrived

‘idem’

This shows that pied-piping and scope marking achieve the same goal — that of licensing a \textit{wh}-item internal to a \textit{<--wh>} clause.

The arguments listed in this section all support the claim that \textit{wh}-items in non-interrogative, \textit{<--wh>} clauses fail to get licensed. This proves that it is indeed a \textit{<+wh>} C\textsubscript{0} head that licenses \textit{wh}-items in Hungarian as well. What this section also
managed to show is that \textit{wh}-scope marking is a rescue strategy in case there is no available \textit{<+wh> C}^{0} licenser in a clause.

\textbf{2.4. Summary of the new account of \textit{wh}-movement}

In this section I have offered a new account of \textit{wh}-movement in Hungarian. This account goes further than earlier analyses and argues for the following points (partly as answer to the questions raised in section 1.3 above):

(i) \textit{wh}-items in questions have a double feature specification: they possess both a \textit{<+f>} and a \textit{<+wh>} feature

(ii) both features are properties of a \textit{Qwh} morpheme that attaches to \textit{wh}-variables and binds them, providing them with question word interpretation

(iii) \textit{wh}-items in questions check \textit{<+f>} against \textit{Foc}^{0}, just like focused items do

(iv) \textit{wh}-items in questions check \textit{<+wh>} against \textit{C}^{0}, unlike focused items

(v) the interrogative nature of clauses is marked on the \textit{C}^{0} head of clauses by way of a \textit{<+wh>} feature

With (i)-(v), the syntax of Hungarian \textit{wh}-movement in questions becomes similar to the \textit{wh}-movement one finds in many well-studied languages, in which \textit{wh}-items are licensed by a \textit{<+wh> C}^{0}. This is definitely a welcome result from the point of view of Universal Grammar.
Multiple questions

1. Types of multiple questions in Hungarian

Hungarian has four types of multiple questions that can be distinguished on syntactic and semantic grounds. For ease of reference I name these four types of multiple questions Type I, II, III and IV, following the terminology introduced by Horvath (1998).

Below in Table 1, each type is exemplified with a single representative sentence.

<table>
<thead>
<tr>
<th>Question</th>
<th>Interpretation</th>
<th>Discussion in</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type I: Ki mit vállalt? who-NOM what-ACC undertook-3SG</td>
<td>for every x, what did x undertake?</td>
<td>section 1.1. and section 2.</td>
</tr>
<tr>
<td>Type II: Ki látott kit? who-NOM saw-3SG who-ACC</td>
<td>for which x and y, is it true that x saw y?</td>
<td>section 1.2. and section 3.</td>
</tr>
<tr>
<td>Type III: Kinek és hogyan segítettél? who-DAT and how helped-2SG</td>
<td>for which x, is it true that you helped x, and in which manner y, did you help x?</td>
<td>section 1.3. and section 4.</td>
</tr>
<tr>
<td>Type IV: Kinek segítettél és hogyan? who-DAT helped-2SG and how</td>
<td>for which x, is it true that you helped x, and in which manner y, did you help x?</td>
<td>section 1.3. and section 4.</td>
</tr>
</tbody>
</table>

In this section, each type of multiple questions will be briefly characterized with respect to basic syntactic and semantic properties. Beside word order properties and the position of wh-items, it will be shown in what contexts the questions can be used and what kind of answers are given to them.

1.1. Type I questions: pair list questions

Type I questions are the most frequent type of multiple questions in Hungarian. The example from Table 1 is repeated in (1):

(1) Ki mit vállalt? who-NOM what-ACC undertook-3SG
    ‘Who undertook what?’
Type I questions always contain all wh-items fronted. The wh-items appear strictly adjacent to each other and are immediately followed by the verb. Phonologically, the wh-items are pronounced with different stresses: it is always the last wh-item that gets the heaviest stress (indicated by ' in (1)).

As far as their interpretation is concerned, Type I questions trigger pair list answers. In the case of (1) this means that each member of a (D-linked) set of individuals (denoted by ki ‘who’) is paired with things that were undertaken by him/her. A possible answer to (1) is given in (2):

(2) Péter takarítást, Mari takarítást és mosást,  
   Péter-NOM cleaning-ACC Mari-NOM cleaning-ACC and washing-ACC,  
   Éva főzést vállalt.  
   Éva-NOM cooking-ACC undertook-3SG  
   ‘Péter undertook cleaning, Mari cleaning and washing and Éva cooking.’

As shown in (2), the answer consists of pairs that comprise individuals and things undertaken. The first element in the pair corresponds to the first wh-item and the second element to the second wh-item in (1). Besides, Type I questions have the property that the set denoted by the first wh-item cannot be a singleton set. This set has to contain a plurality of individuals. Therefore, an answer as in (3) with a single pair is impossible:

(3) *Péter takarítást vállalt.  
   Péter-NOM cleaning-ACC undertook-3SG  
   ‘Péter undertook cleaning.’

The pair list answer as in (2) reflects the interpretation of Type I questions: in effect Type I questions denote a set of questions (set of sets of propositions; Hagstrom 1998). If Péter, Mari and Éva make up the set of people talked about, (1) in effect comprises the following set of questions:

(1') Péter mit vállalt? Mari mit vállalt?  
   Péter-NOM what-ACC undertook-3SG? Mari-NOM what-ACC undertook-3SG?  
   Éva mit vállalt?  
   Éva-NOM what-ACC undertook-3SG?  
   ‘What did Péter undertake? What did Mari undertake? What did Éva undertake?’

That is, (1) denotes a question about every individual in the set denoted by the first wh-item. This made researchers think that Type I questions are universally quantified single questions and so they have the following logical paraphrase (É. Kiss 1993):

(4) for every x, x=person, what did x undertake? (logical paraphrase of (1))

Questions with a logical formula as in (4) are available in other languages as well. (5a) illustrates a pair list question in English:
(5) a. Who undertook what?
   b. Péter undertook cleaning, Mari washing and cleaning and Éva cooking.
   c. for every x, x=person, what did x undertake?

English (5a) differs from Hungarian (1) in that (5a) can have another type of answer, structured differently:

(5) d. Cleaning was undertaken by Péter and Mari, washing by Mari and cooking by Éva.

In this case the set of duties undertaken is known to both speaker and hearer, and the question asks for pairing each duty with people. This corresponds to the following logical structure:

(5) e. for every x, x=duty, who undertook x?

In English multiple questions like (5a), as the above question-answer pair shows, pairing can be done in two ways: the initial member of the pair can correspond to either the first (the raised) wh-item or the in situ one. This is not the case in the Hungarian (1): there the initial member of the pair in the answer can only correspond to the initial wh-item in the question.

So far we have only dealt with multiple questions containing two wh-items. Note that in principle any number of wh-items can appear in Type I questions in Hungarian, as the following example illustrates. (6a) also shows that the order of wh-items is not subject to superiority.

(6) a. Kinek mikor 'mit adtál?
   who-DAT when what-ACC gave-2SG
   ‘What did you give to everyone for each occasion?’
   b. Marinak születésnapra könyvet, névnapra virágot,
      Mari-DAT birthday-SUB book-ACC nameday-SUB flower-ACC
      Péternek születésnapra csokoládét, névnapra lemezt,
      Péter-DAT birthday-SUB chocolate-ACC nameday-SUB disc-ACC
      Évának születésnapra virágot, névnapra könyvet.
      Éva-DAT birthday-SUB flower-ACC nameday-SUB book-ACC
      ‘To Mari books for her birthday and flowers for her nameday, to Péter chocolates for his birthday and discs for his nameday, to Éva flowers for her birthday and books for her nameday.’
   c. for every x,y, such that x=person, y=occasion, what did you give to x at y?

As the answer to the question, (6b), and its interpretation, (6c), also shows, in (6a) all wh-items except for the linearly last one run through (quantify over) individuals (people and occasions), while the last wh-item appears with interrogative interpretation. This shows that we find the following split in the interpretation of wh-
items in Type I questions: the linearly last item behaves as a run-of-the-mill question word, and the linearly non-last elements range over (D-linked) sets of individuals. We will return to the syntactic properties of Type I questions in section 2 below.

1.2. Type II questions: single pair questions

Type II questions in Hungarian differ from Type I questions in various ways. Syntactically a clear difference is that in this type the \(wh\)-items are not adjacent to each other in preverbal positions. Rather we find one \(wh\)-item in preverbal position and another one or other ones in postverbal position(s). The preverbal one is left-adjacent to the verb, while the postverbal one tends to come at the very end of the clause, although it is also acceptable in more internal positions:

\begin{enumerate}
\item (7) a. Ki hivott meg tegnap a moziba kit? \\
who-NOM invited-3SG PV yesterday the cinema-ILL who-ACC
b. (?)Ki hivott meg kit tegnap a moziba? \\
who-NOM invited-3SG PV who-ACC yesterday the cinema-ILL
c. (?)Ki hivott meg tegnap kit a moziba? \\
who-NOM invited-3SG PV yesterday who-ACC the cinema-ILL

‘Who invited whom yesterday to the cinema?’
\end{enumerate}

(8) shows Type II questions with three \(wh\)-items. The examples slightly degrade if the postverbal \(wh\)-items are not final or are separated by other material:

\begin{enumerate}
\item (8) a. Ki mutatott be tegnap \\
who-NOM introduced-3SG PV yesterday a moziban kit kinek? \\
the cinema-INE who-ACC who-DAT?
b. (?)Ki mutatott be \\
who-NOM introduced-3SG PV kit kinek tegnap a moziban? \\
who-ACC who-DAT yesterday the cinema-INE
c. ?Ki mutatott be kit \\
who-NOM introduced-3SG PV who-ACC tegnap a moziban kinek? \\
yesterday the cinema-INE who-DAT
d. *Ki kit mutatott be \\
who-NOM who-ACC introduced-3SG PV tegnap a moziban kinek? \\
yesterday the cinema-INE who-DAT

‘Who introduced whom to whom yesterday in the cinema?’
\end{enumerate}

Note that any \(wh\)-item can be fronted to the preverbal focus position, since superiority restrictions do not apply to these constructions:
(7) d. Kit hivott meg tegnap a moziba ki?
who-ACC invited-3SG PV yesterday the cinema-ILL who-NOM
‘Who invited whom yesterday to the cinema?’

(8) e. Kit mutatott be tegnap a moziban ki kinek?
who-ACC introduced-3SG PV yesterday the cinema-INE who-NOM who-DAT
‘Who introduced whom to whom yesterday in the cinema?’

Beside the placement of *wh*-items in the above described manner, Type II questions are characterized by a further syntactic requirement: the *wh*-items in Type II questions must necessarily be the same lexical item. That is, all *wh*-items must have the same morphology throughout, except for case morphology, which can be different on these items. The following examples illustrate this requirement. The grammatical cases involve the same *wh*-item throughout, the ungrammatical cases do not:

(9) a. Ki mutatott be tegnap a moziban kit kinek?
who-NOM introduced-3SG PV yesterday the cinema-ILL who-ACC who-DAT
‘Who introduced whom to whom yesterday in the cinema?’

b. *Ki hivott meg a moziba kit mikor?
who-NOM invited-3SG PV the cinema-INE who-ACC when
‘Who invited whom to the cinema when?’

(10) a. Ki állt ki mőgött?
who-NOM stood-3SG who behind
‘Who stood behind whom?’

b. *Ki állt mi mőgött?
who-NOM stood-3SG what behind
‘Who stood behind what?’

(11) a. Mi határoz meg mit?
what-NOM determine-3SG PV what-ACC
‘What determines what?’

b. *Mi határozza meg a nyomást hogyan?
what-NOM determine-3SG PV the pressure-ACC how
‘What determines the pressure how?’

(12) a. Melyik fiú hívta meg melyik lányt melyik buliba?
which boy-NOM invited-3SG PV which girl-ACC which party-INE
‘Which boy invited which girl to which party?’

b. *Melyik fiú hívta meg melyik lányt hova?
which boy-NOM invited-3SG PV which girl-ACC where
‘Which boy invited which girl where?’

Type II questions, unlike Type I questions, are single pair questions. They can be used in two contexts. In one the ordering in a pair (or, less frequently, in an n-tuple) is questioned (*ordering questions*), in the other the question asks for identification of a pair or n-tuple of individuals (*identifying questions*).
The interpretation in which the ordering is questioned is available if the individuals to be ordered are both known (specific) in the discourse. That is, (7a) above can be used in a context in which we know that Péter and Mari went to the cinema, but we do not know which of the two invited the other to the cinema. To find this out, (7a) can be asked. The answer to this type of question provides a single proposition and structurally involves the construction which contains more than one focused constituent and which is termed “mirror focus” in Alberti and Medve (2000):

(13) a. Ki hivott meg tegnap a mozibá kit? (=7a)
   who-NOM invited-3SG PV yesterday the cinema-ILL who-ACC
   ‘Who invited whom yesterday in the cinema?’

b. PÉTER hivta meg tegnap a moziba MARIT.
   Péter-NOM invited-3SG PV yesterday the cinema-ILL Mari-ACC
   ‘PÉTER invited MARI yesterday to the cinema (not the other way around).’

That is, the question in (13a) asks for identifying the pair formed of the known pair of individuals by asking for the ordering relation between the elements, i.e. picking either: <a,b> or <b,a>, where 'a' and 'b' stand for the individuals in question. The ordering of the individuals corresponds to the theta-roles they have.

In the other environment where Type II questions are used, they ask for identification of a pair or n-tuple of individuals by picking out one individual from different sets. The sets have to be known to both the speaker and the hearer. (13a) can have such a reading as well, in this case it receives the following answer:

(13) c. PÉTER hivta meg tegnap a moziba MARIT.
   Péter-NOM invited-3SG PV yesterday the cinema-INE Mari-ACC
   ‘(Out of the people in question) PÉTER invited MARI to the cinema (and not, for example, JÁNOS invited BEA).’

To illustrate the same with a question containing three wh-items, consider (9a) above, repeated here as (14a). This question can be used when it is known that yesterday there was a group of people in the cinema, and among these people one introduced another one to a third one. In this context, (14a) asks for the identification of these individuals, and can be answered by a single proposition as in (14b):

(14) a. Ki mutatott be tegnap a moziban kit kinek?
   who-NOM introduced-3SG PV yesterday the cinema-INE who-ACC who-DAT
   ‘Who introduced whom to whom yesterday in the cinema?’

b. PÉTER mutatta be MARIT JÁNOSNAK.
   Péter-NOM introduced-3SG PV Mari-ACC János-DAT
   ‘PÉTER introduced MARI to JÁNOS’.

Type II questions are also found in other languages, like English and Dutch. In
English we also find one *wh*-item fronted, and the other(s) in postverbal position (Wachowicz 1974, 1975, attributing it to C.L. Baker):

(15)  a. Who hit whom?
     b. Peter hit John.  

(15a) can be asked as an ordering question, but also as an identifying question. (16) exemplifies Type II questions from Dutch:

(16)  a. Wie laat nu wie uit?
     who-NOM let-3SG now who-ACC out
     'Who takes out whom?'
     b. Piet laat Fido uit.
     Péter-NOM let-3SG Fido-ACC out
     'Piet takes out Fido.'

English and Dutch Type II questions have the same restrictions as the Hungarian ones: the *wh*-items have to be identical (cf. 9-12). The following sentences are ungrammatical in the intended meaning (although they are grammatical as pair list multiple questions):

(17)  a. *Who hit which boy?
     b. *Wie laat welke jongen uit?

     who-NOM let-3SG which boy-ACC out
     'Who takes out which boy?'

     [Dutch]

     'What conditions what?'

     Slavic languages also have Type II questions. These have the exact same syntactic characteristics as the Hungarian ones: only one *wh*-item fronts and all *wh*-items have to be phonologically identical (Bošković 1997 attributing this to Wayles Browne p.c.).

(18)  a. Šta uslovlaja šta?
     what-NOM condition-3SG what-ACC
     'What conditions what?'
     b. *Ko kupuje šta?
     who-NOM buy-3SG what-ACC
     'Who buys what?'

     [Serbo-Croatian]

1.3. Type III and IV questions: conjoined questions

Type III and IV questions share the common property that one of the *wh*-items in these sentences is preceded by a conjunctor 'and' element. I will call this *wh*-item the "conjoined *wh*-item". Type III differs from Type IV in the position of the conjoined *wh*-item: in Type III, the conjoined *wh*-item appears preverbally, while in
Type IV questions, the conjoined one appears postverbally:

(19) a. Ki és mikor láttta Marit? (Type III)
    who-NOM and when saw-3SG Mari-ACC

b. Ki láttta Marit és mikor?
    who-NOM saw-3SG Mari-ACC and when
    ‘Who saw Mari and when?’

The presence of the conjunctor element is indicative of the fact that we are dealing with a Type III or Type IV question in Hungarian. Note that the conjunctor, however, can be phonetically null as well. In case of Type III questions, this then results in a word order typical of Type I questions (see section 1.1 above):

(20) 'Kit, 'mikor, 'hol láttál?
     who-ACC when where saw-2SG
     ‘Whom did you see, where and when?’

The necessary heavy stress on all wh-elements (indicated by ’ in (20)) reflects though that we are not dealing with a Type I question. Instead the wh-items are “listed” with silent conjunctors between them. The same lack of overt conjunction can be found with Type IV questions as well, although it is much less natural than with Type III questions:

(21) ?'Kit láttál 'mikor, 'hol?
     who-ACC saw-2SG ’ when where
     ‘Whom did you see, where and when?’

As far as interpretation is concerned, Type III and IV questions (as the translations above show) are always interpreted as conjoined single questions. The answer need not be picked from a specific set of individuals (these questions do not presuppose the existence of a specific set). For illustration let us take question (19a,b). This asks for identification of the person who saw Mari and the time when this happened. (19a,b) have the same interpretation as the following complex clause formed of two single questions conjoined:

(22) Ki láttta Marit és mikor láttta Marit?
    who-NOM saw-3SG Mari-ACC and when saw-3SG Mari-ACC
    ‘Who saw Mari, and when did he see Mari?’

Answers to Type III and IV questions involve a single proposition, in which the constituents corresponding to the wh-items are focused:

(23) a. PÉTER és TEGNAP láttta Marit.
    Péter-NOM and yesterday saw-3SG Mari-ACC
Type III and IV questions can be found in other languages as well, although the two types have different restrictions. In Dutch and English, for example, Type IV questions can involve an argument \textit{wh}-item as first \textit{wh}-item and an adjunct \textit{wh}-item as conjoined \textit{wh}-item:

\begin{enumerate}
\item \textit{Wie heeft Marie gezien en wanneer?} \textit{[Dutch]}
\begin{itemize}
\item who-NOM has Marie-ACC seen and when
\end{itemize}
\begin{itemize}
\item ‘Who saw Marie and when?’
\end{itemize}
\item b. Who saw Mary and when?
\end{enumerate}

Type III questions, however, are ungrammatical when either or any of the \textit{wh}-items is an argument (see Browne 1972 for English):

\begin{enumerate}
\item \textit{Wie en wanneer heeft Marie gezien?} \textit{[Dutch]}
\begin{itemize}
\item who-NOM and when has Marie-ACC seen
\end{itemize}
\begin{itemize}
\item ‘Who saw Marie and when?’
\end{itemize}
\item b. *Who and when saw Mary?
\end{enumerate}

On the other hand, if both \textit{wh}-items are adjuncts, the sentences are grammatical:

\begin{enumerate}
\item \textit{Hoe en wanneer heb jij Marie ontmoet?} \textit{[Dutch]}
\begin{itemize}
\item how and when have you-NOM Marie-ACC met
\end{itemize}
\begin{itemize}
\item ‘How and when did you meet Marie?’
\end{itemize}
\item b. How and when did you meet Mary?
\end{enumerate}

Romanian (Comorovski 1989) and Slavic languages (Browne 1972), however, pattern with Hungarian in that they allow for other combinations of \textit{wh}-items as well in Type III questions. The following illustrates these respectively:

\begin{enumerate}
\item \textit{Cui și ce iai dat?} \textit{[Romanian]}
\begin{itemize}
\item whom-to and what-ACC to-him-you-have given
\end{itemize}
\begin{itemize}
\item ‘What did you give and to whom?’
\end{itemize}
\item b. Ko i čime je razbio staklo? \textit{[Serbo-Croatian]}
\begin{itemize}
\item who-NOM and what-INS aux-3SG break glass-ACC
\end{itemize}
\begin{itemize}
\item ‘Who broke the glass and with what?’
\end{itemize}
\end{enumerate}

For further properties of these question types in Hungarian, see section 4 below.
2. The analysis of Type I questions

2.1. Non-final *wh*-items as universal quantifiers: É. Kiss (1993)

The starting point of the analysis of Type I questions in É. Kiss (1993) is the observation that (1) above, repeated here as (28a), has the interpretation in (28b):

(28)  a. Ki mit vállalt? (=1)
       who-NOM what-ACC undertook-3SG
    ‘Who undertook what?’

b. for every x, such that x = man, what did x undertake?

The simple logical representation in (28b) reflects that Type I questions stand for a multiplicity of questions. Type I questions denote a set of questions (set of sets of propositions) as noted in Hagstrom (1998) (for illustration, see (1') above), and get answered by a set of sentences (see (2)). As I have shown above in (6) in section 1.1, any Type I question comprises two different kinds of *wh*-items: a true interrogative one (the final one) and that or those which range over a D-linked set (the non-final one(s)).

To reflect the latter property of non-final *wh*-items in Type I questions, É. Kiss (1993), partly following Comorovski (1989), presents an analysis according to which the non-final *wh*-items “convert” into a universal quantifier and distribute over the final one. Structurally, this corresponds to the following movement processes in the derivation: the final *wh*-item moves to Spec,FocP, as usual in single questions (see Chapter 2), and all other *wh*-items (the non-final ones) move into Spec,DistP positions, which are reserved for universal quantifiers (Szabolcsi 1997). The resulting structure is as shown in (29) for (28a) above and in (30) schematically for any Type I question:

(29)  [DistP ki [FocP mit vállalt [VP t_i t_k t_j]]]

(30)  [DistP* wh_i [FocP wh_j V_k V_0 [VP t_i t_k t_j]]]

This analysis treats non-final *wh*-items in Type I questions as elements with a quantificational meaning, thereby accounting for the fact that they seem to have universal force. The non-final *wh*-items are parallel to other universal quantifiers in that they raise to Spec,DistP in this analysis.

2.2. The analysis of Type I questions in light of recent developments

2.2.1. Distributive relations in general and in Type I questions

As an update of the É. Kiss’ (1993) analysis, we can cast the above into the more current terminology of Beghelli and Stowell (1997) and Szabolcsi (1997).

These authors argue that the relation of distribution always involves two
formatives in the syntax: a *distributor* phrase and a *distributee* (or distributive share) phrase. To illustrate these in a simple sentence, consider the following example:

(31) a. \[\text{[distributor, Minden fiú] vállalt [distributive share, egy feladatot].} \]

\(\text{every boy-NOM undertook-3SG a task-ACC} \)

‘Every boy undertook a task.’

b. for every \(x\), such that \(x=\text{boy}\), there was a (distinct) task he undertook

As (31b) shows, boys necessarily have to distribute over tasks in this sentence in Hungarian (just as in English). According to Beghelli and Stowell (1997) and Szabolcsi (1997), the distributive relation is syntactically encoded in that the distributor finds itself in the Distributive Phrase (DistP), and the distributive share finds itself in a special Share Phrase (ShareP) at some point in the derivation. DistP immediately dominates ShareP, and if Spec,DistP is filled, Spec,ShareP has to be filled as well, otherwise the proper distributive relation cannot attain and the sentence becomes ungrammatical. The configuration we are dealing with in (31) is to be represented at LF as in (31c):

(31) c. \(\text{[DistP, Minden fiú [ShareP, egy feladatot ... vállalt]]} \)

As we have noted above, the distributive relation is also present in Type I multiple questions. Non-final *wh*-items distribute over the final one, and as such have the same distributive property as distributive quantifiers like *minden fiú* ‘every boy’ above:

(32) a. \(\text{Ki mit vállalt?} \)

\(\text{who-NOM what-ACC undertook-3SG} \)

‘Who undertook what?’

b. for every \(x\), such that \(x=\text{man}\), what did \(x\) undertake?

While *minden fiú* ‘every boy’ distributes over *egy feladatot* ‘a task’ in (31a), *ki* ‘who’ in (32a) distributes over *mit* ‘what-ACC’. Therefore, the same representation can be offered for the two distributive relations:

(33) \(\text{[DistP, ki [ShareP, mit ... vállalt]]} \)

It has to be mentioned that the sketched analysis cannot give a full account of why *wh*-items cannot freely occur in DistPs, with ShareP being filled with any distributee. Curiously enough, DistP can only host a *wh*-item if Spec,FocP also hosts one.\(^1\)

---

\(^1\)As Katalin É. Kiss pointed out to me, there are other cases where necessary concordance shows up with preverbal elements. This is noticeable for example in that free choice elements (*akár-* and *bár*-affixed *wh*-phrases) must have the same morphology throughout:
A treatment along the lines of (33) has been proposed by Garrett (1996) for English pair list questions. Garrett (1996) notes that the pair list interpretation of multiple questions in English is available in the exact same environments in which a distributive construal between a quantificational distributor and distributee is possible. Across infinitives (34a,b), and across certain indefinite DPs (35a,b) both relations are fine, while both relations are blocked by certain types of adjuncts (36a,b) and complex noun phrases (37a,b). In the following examples, which show this, coindexing stands for a distributive relation between the every-phrase and the some-phrase:

(34)  a. Everyone wants to buy something.
     b. Who wants to buy what?

(35)  a. Everyone wants to buy a picture of someone.
     b. Who wants to buy a picture of who?

(36)  a. You wanted to meet everyone while Max was eating something.
     b. *Who did you want to meet while Max was eating what?

(37)  a. Everyone wanted to meet a woman who wrote something.
     b. *Who wanted to meet a woman who wrote what?

On the basis of these facts, revealing a parallel between the (im)possibility of distributivity and pair list readings, Garrett puts forward the claim that the wh-items in English also raise into DistP and ShareP at some point in the derivation: the superior wh-item moves to Spec,DistP overtly (on its way to Spec,CP), and the in situ wh-item raises to Spec,ShareP in covert syntax:

(38)  a. [DistP everyone; [ShareP something; [VP t_i wants to buy t_j]]]  (LF structure)
    b. [DistP who_i [ShareP what_i [VP t_i wants to buy t_j]]]  (LF structure)

Note that in Hungarian, unlike in English, where the configuration in (38b) obtains only at LF, movement of all wh-items has to take place before spellout. This means that the final wh-item also fronts. The position where it fronts to is Spec, FocP. Interestingly, this supports the treatment in (38). Szabolcsi (1997) notes (independently of the discussion of multiple questions) that ShareP instantiates the same category as FocP in Hungarian: the two are the instantiation of one and the same syntactic position. With this, the structure of Type I multiple questions (as given above in (30)) naturally falls into place in the Beghelli-Stowell and Szabolcsi framework as well:

(39)  [DistP wh_i [ShareP/FocP wh_j V_k 0 [VP t_i t_k t_j]]]
The structure in (39) therefore can be taken to be the syntactic configuration in which *wh*-items find themselves in Type I questions in Hungarian. The distributive relation inherently present in Type I questions is therefore read off from the DistP – ShareP/FocP configuration according to this analysis. The resulting structure conforms to the requirement that preverbal quantificational elements in Hungarian c-command and linearly precede their scope (É. Kiss 1987, 1994). DistP dominating FocP, *wh*-items in Spec, DistP scope and distribute over the *wh*-item in FocP.

2.2.2. The syntax of Type I questions

To complete the picture of Type I questions, there is still an issue that has to be settled: how does syntactic licensing of the *wh*-items proceed in Type I questions?

In Chapter 2 it has been shown that single questions involve the following mechanism of feature-checking relations:

\[(40) \quad [\text{CP} [C^0 \ldots [\text{FocP}[Q_{wh} [wh]], [\text{Foc'} Foc^0 [\ldots t, \ldots]]]]]
\]

\[<+\text{wh}_{\text{int, weak}}> \ldots \ldots \ldots <+\text{wh}_{\text{int}}>
\]

\[<+f_{\text{int}}>\ldots\ldots<+f_{\text{int, strong}}>
\]

The *wh*-item raises to Spec,FocP to check its interpretable <+f> feature against Foc^0. At LF, it launches its non-interpretable <+wh> feature to check the non-interpretable <+wh> feature on C^0.

The previous sections have shown that out of the row of *wh*-items that are lined up in front of the verb only one *wh*-item has interrogative interpretation in Type I questions, namely the last *wh*-item. This one occupies the Spec,FocP position, just like a single *wh*-item does in single questions, shown in (40). Non-final *wh*-items occupy the Spec,DistP positions, which is an iterable projection in Hungarian. It was shown above that the *wh*-items appear with a universal construal as a result of the fact that they occupy Spec,DistP. I take it that DistP provides elements in its specifier with a default distributive universal interpretation. Non-final *wh*-items, when occupying this position also construe with a universal meaning. Since they occur in Spec,DistP, the only interpretation available to them is the universal one. The universal interpretation, however, is not inherent in them. This fits in well with the overall argumentation of this dissertation: *wh*-items in Hungarian are variables, whose quantificational force is provided in the syntax. In case of Type I questions, the non-final *wh*-items gain universal interpretation as a result of the structural configuration they occur in.

This results in the following representation of Type I questions: non-final *wh*-items are variables without a <+f> and <+wh> feature to check, while the final one is a real interrogative *wh*-item, which means that it is bound by an interrogative Q_{wh} operator, which provides it with a <+f> and a <+wh> feature, and these features undergo checking in the syntax, against the features on Foc^0 and C^0 respectively:

\[(41) \quad [\text{CP} [C^0 \ldots [\text{DistP}wh_h [\text{DistP}wh_j [\text{FocP} [Q_{wh} [wh]], [\text{Foc'} Foc^0 [t, t, t, t]]]]]]]
\]

\[<+\text{wh}_{\text{int, weak}}> \ldots \ldots \ldots <+\text{wh}_{\text{int}}>
\]

\[<+f_{\text{int}}>\ldots\ldots<+f_{\text{int, strong}}>
\]
Type I questions therefore can be said to involve two types of *wh*-items and two different licensing mechanisms: the non-final *wh*-items are interpreted as universal quantifiers by way of sitting in DistP, while the final *wh*-item is bound by an interrogative operator that provides it with interrogative force.

With respect to the structural representation provided here, note that (41) crucially differs from those examples (mentioned in Chapter 2), in which we find a lexical quantifier in Spec,DistP. Lexical quantifiers cannot occur there:

(42) *Mindig kit hívtál meg?
always who-ACC invited-2SG PV
‘Who did you invite always?’

The ungrammaticality of (42) is due to an intervention effect: the harmful effect of a quantificational element on the chain that <+wh> feature movement creates between the *wh*-item in Spec,FocP and C:

(43) \[ [CP C^0_{<+wh>}[DistP mindig [FocP kit_{<+wh>} hívtál meg ]]] \]
\[ \chi \]

The fact that the same situation does not arise in (43) above is due to the lack of quantificational properties of the intervening element or elements. They acquire such a property as a result of their structural placement in Spec,DistP. They themselves, however, do not qualify as inherent quantificational elements and therefore do not block the LF <+wh> feature checking process.

2.3. Lack of superiority effects — the specificity of non-final *wh*-items

Another important ingredient of É. Kiss’ (1993) analysis involves pointing out that non-final *wh*-items in Type I questions have to be specific. Note that specific, in the way it is used here (in the sense of Enç 1991) is referred to elsewhere as D-linked (as in Pesetsky 1987). The specificity restriction requires that all non-final *wh*-items in Type I questions quantify over a known set of individuals. Any set that can be construed with specific reference can be represented by a *wh*-item in Type I questions in Hungarian. Correspondingly, any *wh*-item that can denote a specific set can be initial.

That this is indeed the case can be easily demonstrated with the help of aggressively non-D-linked *wh*-items. These are expressions, like who the hell in English, that cannot construe with a D-linked (specific) interpretation. As expected on the basis of É. Kiss’s analysis, non-D-linked *wh*-items cannot occur as non-final *wh*-items in Hungarian (44), but can occur as the final *wh*-item (45):
MULTIPLE QUESTIONS

(44) *Ki a fene mit vett?
who the hell-NOM what-ACC bought-3SG

(45)  Mit ki a fene vett?
what-ACC who the hell-NOM bought-3SG
‘Who the hell bought which thing?’

Since any wh-item is grammatical as a non-final wh-item as long as it can be construed with a specific interpretation, the superiority condition (Chomsky 1973) does not hold in Hungarian. The order of wh-items is not determined by their position in the base, as in English (see 46), but by their interpretation (their specificity/D-linked nature):

(46) a. Who did what undertake?
    b. *What did who undertake?

(47) a. Ki mit vállalt?
   who-NOM what-ACC undertook-3SG
   ‘For everyone, what did he undertake?’

b. Mit ki vállalt?
   what-ACC who-NOM undertook-3SG
   ‘For every task, who undertook it?’

While in English multiple questions we find an ordering restriction on wh-items (it is always the most superior argument that must be fronted), in Hungarian any wh-item can precede another wh-item, provided it is more specific. As (47a,b) show, the different order of wh-items results in different interpretations and consequently involve different LF structures and derivations.

The latter in turn also explains why Hungarian does not show superiority effects. Superiority, analyzed with reference to “attract the closest constituent”, as in Chomsky (1995), Richards (1997) and Bošković (1998a,b), is the result of there being competing derivations that yield the same LF structures, out of which the most economical one (in terms of shortest move or fewest steps to an attracting head) “wins”. In English, as examples (5b) and (5d) above have shown, the order of wh-items in a multiple question does not determine the meaning of the question (and the acceptable answers to it): pairing can be done either way (by pairing the individuals corresponding to the first wh-item to the ones corresponding to the second or vice versa). Since there is no meaning difference between the two, the English (46a) wins over (46b) on syntactic grounds: due to the fact that the base position of the subject is closer to C₀ than the base position of the object, movement of the wh-item from the subject position to C₀ is more economical.

Since Hungarian (47a) and (47b) correspond to two different LF representations, they do not form competing derivations and therefore, superiority does not show up.

Note in this respect that according to Bolinger (1978) and Pesetsky (1987), in the desired contexts, superiority-violating English sentences are also possible if the in situ wh-item is D-linked:
(48) (I know that we need to install transistor A, B and C, and I know that these three holes are for transistors, but I'll be damned if I can figure out) where what goes!

This parallels the case of Hungarian (47). If D-linked wh-items occupy different positions from non-D-linked ones at LF, construing what with a D-linked interpretation means that the resulting sentence does not compete with the string what goes where, where the wh-items are not D-linked. The two sentences are both grammatical, because economy considerations do not enter the picture at all. For a similar, but in execution different, approach to superiority in multiple questions see Fiengo (1998).

3. The analysis of Type II questions

In this section I turn to the analysis of Type II questions. I exemplify them from above with (7) and (8):

(7) a. Ki hívott meg tegnap a moziba kit?
   who-NOM invited-3SG PV yesterday the cinema-INE who-ACC
b. (?)Ki hívott meg kit tegnap a moziba?
   who-NOM invited-3SG PV who-ACC yesterday the cinema-INE
c. (?)Ki hívott meg tegnap kit a moziba?
   who-NOM invited-3SG PV yesterday who-ACC the cinema-INE
   ‘Who saw whom yesterday in the cinema?’

(8) a. Ki mutatott be tegnap
   who-NOM introduced-3SG PV yesterday
   a moziban kit kinek?
   the cinema-INE who-ACC who-DAT?
b. (?)Ki mutatott be
   who-NOM introduced-3SG PV
   kit kinek tegnap a moziban?
   who-ACC who-DAT yesterday the cinema-INE
d. *Ki kit mutatott be
   who-NOM who-ACC introduced-3SG PV
   tegnap a moziban kinek?
   yesterday the cinema-INE who-DAT
   ‘Who introduced whom to who yesterday in the cinema?’

As it was shown above, Type II questions necessarily involve the same wh-items throughout, and they refer to a single event. In this, Hungarian does not differ from other languages, like English, where this is also the case (Higginbotham and May 1981).

Answers to Type II questions are always single pair answers. They involve a single proposition, in other words a single pair (or single n-tuple) answer describing
one event, not a pair list answer:

(49) a. PÉTER hívt a moziba MARIT. (=13b)
    Péter-NOM invited-3SG PV yesterday the cinema-INE Mari-ACC
    'PÉTER invited MARI yesterday to the cinema, not the other way around.'

b. PÉTER mutatta be MARIT JÁNOSNAK. (=14b)
    Péter-NOM introduced-3SG PV Mari-ACC János-DAT
    'PÉTER introduced MARI to JÁNOS.'

3.1. Structural representation

3.1.1. The position of wh-items

The analysis of Type II questions has not been spelled out in much details in Hungarian syntax. There are two studies that mention them, rather tangentially: É. Kiss (1993) and Horvath (1998).

É. Kiss (1993) suggests that the fronted wh-item is raised to Spec,FocP while the postverbal wh-item is right-dislocated. As far as the placement of the fronted wh-constituent is concerned, there is no doubt that it is in Spec,FocP, since it behaves exactly like wh-items in single questions: it occupies the preverbal position and triggers preverb-stranding (see example (7) and (8) above). The structural position of the postverbal wh-item is less clear. What is known about this constituent is that it preferably occurs at the right edge of the clause. For this reason, it is not an in situ constituent, but it can be a right-dislocated element.

Horvath (1998) takes the same stand and follows É. Kiss (1993) in arguing that the postverbal wh-item or wh-items are crucially not in situ, rather these wh-items are in A-bar positions.

Her arguments for this, however, are not conclusive in showing that the postverbal wh-items really occupy a position which is recognized as a (low) A-bar position in the syntax. One of the arguments she introduces refers to the fact that these elements carry heavy stress like focused constituents do, and that the distribution of focus is in general restricted to some, most notably A-bar positions. This, however, as we will see below, need not mean that the surface position these elements occupy is an A-bar slot. Secondly, Horvath (1998) refers to Hornstein (1995) who points out that inherently non-D-linked wh-items like who and what in English can only have a D-linked interpretation if they occur in A-bar positions. Since the wh-items in Hungarian Type II questions are always D-linked as described above, Horvath concludes that these occupy A-bar positions.

Most importantly, however, there is at least one syntactic test applicable to Type II questions that clearly shows that postverbal wh-items in these questions are not in any sort of A-bar position: this is the licensing of parasitic gaps. It is known since Chomsky (1977) that parasitic gaps are only licensed by a constituent in an A-bar position (i.e. by an A-bar chain) in overt syntax. In questions like (50), where (50b) is a Dutch example, the wh-item licenses a parasitic gap in an adjunct:
(50)  a. Who did John invite [without knowing well pg ]?
    b. Wie nodigde Jan uit [zonder goed te kennen pg ]?
       who-ACC invited-3SG Jan-NOM PV without good to know-INF
       ‘Who did Jan invite without knowing well?’
    c. Kit hívott meg János [anélkül hogy ismerne pg ]?
       who-ACC invited-3SG PV János-NOM without that know-SUBJ-3SG
       ‘Who did János invite without knowing?’

The matrix wh-item is able to license the parasitic gap (marked as pg in the examples) because it occupies an A-bar position in the matrix clause. Now, if we try to license a parasitic gap by a postverbal wh-item in Type II questions, these examples all fail. Recall from (15) and (16) above that both English and Dutch have Type II questions:

(51)  a. *Who invited whom [without knowing well pg ]?
    b. *Wie nodigde wie uit [zonder goed te kennen pg ]?
       who-NOM invited-3SG who-ACC PV without good to know-INF
       ‘Who invited whom without knowing him well?’
    c. *Kit hívott meg kit [anélkül hogy ismerne pg ]?
       who-NOM invited-3SG PV who-ACC without that know-SUBJ-3SG
       ‘Who invited whom without knowing?’

The ungrammaticality of these examples is the same in all languages under consideration. This proves that the postverbal wh-item in Type II constructions does not sit in an A-bar position, unlike the first wh-item, which occupies an A-bar position. The latter can be demonstrated by the phenomenon at hand as well: in Hungarian, where there is no superiority in Type II questions, it is possible to front the object wh-item and leave the subject wh-item postverbal. In this case, the object wh-item can license a parasitic gap:

(52)  Kit hívott meg ki [anélkül hogy ismerne pg ]?
       who-ACC invited-3SG PV who-NOM without that know-SUBJ-3SG
       ‘Who invited whom without knowing?’

Having refuted Horvath’s (1998) claim that the postverbal wh-items are A-bar constituents in Hungarian, we still have to answer the question why it is that they occur at the right periphery of the clause in most cases, and why it is that in this behaviour they pattern together with focused constituents. The following section addresses these points.

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2 Note that the parasitic gap test can only be carried out with object wh-item, due to the anti-c-command restriction on parasitic gap licensing: the real trace cannot c-command the parasitic gap. Given that the adjunct clause is adjoined higher than the base position of the object, but not higher than the base position of the subject, the position of subject wh-items can never be tested this way.
3.1.2. Type II questions as mirror focus constructions

As Horvath herself notes, the placement of the postverbal \textit{wh}-items in Type II questions is paralleled by multiple focus constructions in Hungarian. In the latter constructions, termed "mirror focus", we find one focused item in the regular preverbal position, and another one or other ones postverbally, canonically at the right edge (Alberti and Medve 2000). The interpretation of mirror focus constructions shows that what is focused in these is pairs or n-tuples. Note that both in Type II questions and in mirror focus constructions the \textit{wh}-items and foci respectively appear with heavy stress:

\begin{align*}
(53) & \quad \text{a. PÉTER mutatta be Marit JÁNOSNAK.} \\
& \quad \text{Péter-NOM introduced-3SG PV Mari-ACC János-DAT} \\
& \quad \text{b. (?)PÉTER mutatta be JÁNOSNAK Marit.} \\
& \quad \text{Péter-NOM introduced-3SG PV János-DAT Mari-ACC} \\
& \quad \text{‘PÉTER introduced Mari to JÁNOS (and not vice versa/and not, for example, BÉLA introduced her to BEA).’}
\end{align*}

This pattern is exactly parallel to what we find in Type II questions, recall (7) and (8) from above. The parallel is not only present in syntactic and phonological terms, but also in semantic terms: sentences as in (54) are given as answers to Type II questions.

\begin{align*}
(54) & \quad \text{a. PÉTER hivta meg tegnap a moziba MARIT. (=13b)} \\
& \quad \text{Péter-NOM invited-3SG PV yesterday the cinema-INE Mari-ACC} \\
& \quad \text{‘(Out of the people in question) PÉTER invited MARI.’} \\
& \quad \text{b. PÉTER mutatta be MARIT JÁNOSNAK. (=14b)} \\
& \quad \text{Péter-NOM introduced-3SG PV Mari-ACC János-DAT} \\
& \quad \text{‘PÉTER introduced MARI to JÁNOS.’}
\end{align*}

The overriding parallelism between Type II questions and mirror focus constructions shows that the position of the postverbal \textit{wh}-item in Type II questions is the same as that of postverbal focus constituents in Hungarian mirror focus constructions. As far as the latter is concerned, Alberti and Medve (2000) suggest that the two word-order variants in (53) are \textit{stylistic} variants of each other. That is, the rule that shifts the postverbal focus constituent to the right edge of the clause is a PF-rule that applies after the spellout point in the derivation. The \textit{stylistic}/PF-nature of the movement is observable from the fact that the different word order patterns do not correspond to any difference in meaning. The motivation for such a PF-shift is not of concern to us here. Intuitively it is clear that the rightward shift is conditioned by phonological requirements. It is well known that focus has to be marked by heavy (eradicating) stress, and the distribution of heavy stress is not free. The rightward PF-shift presumably serves the goal of creating the biggest possible distance between two focused constituents, i.e. to distribute heavy stress most evenly across the clause. What the precise mechanism behind this phenomenon is falls outside the scope of the present study.
Coming back to the analysis of Type II questions, we can now conclude on the basis of these observations that:

(i) the postverbal *wh*-item in Type II questions is licensed in exactly the same environments where the postverbal focus constituent is licensed in mirror focus constructions\(^3\)

(ii) the postverbal *wh*-item either occupies an in situ (A-position) position or is shifted to the right in the PF component of the grammar

3.1.3. The syntactic licensing of the postverbal *wh*-item

Interestingly, Hungarian is not the only language where an in situ *wh*-item patterns with focused constituents. Cheng and Rooryck (2000) discuss another language where in situ *wh*-items are licensed in exactly the same environment as focused items: (the standard dialect of) European Portuguese. In Portuguese, subject *wh*-items can only stay in situ in embedded clauses when they are postverbal:

(55)    a. *O João pensa que quem viu a Maria?
      the João-NOM think-3SG that who-NOM saw-3SG the Maria-ACC
    b. O João pensa que viu quem a Maria?
      the João-NOM think-3SG that saw-3SG who-NOM the Maria-ACC
    c. O João pensa que viu a Maria quem?
      the João-NOM think-3SG that saw-3SG the Maria-ACC who-NOM
      ‘Who does João think that saw Maria?’

As Costa (1998) argues, the postverbal position is the only position where a subject is licensed as focus: subjects can only be interpreted as focus if they appear in this position. Portuguese in situ subject *wh*-items are therefore curiously dependent on focus, just like in Hungarian.

Cheng and Rooryck (2000) identify this type of *wh*-in situ as *focus-licensed* *wh*-in situ, and argue that it instantiates a subcase of in situ phenomena. Focus-licensed in situ *wh*-items seem to have different licensing restrictions from the examples known to instantiate *wh*-in situ, like those found in French.

\(^3\) It is important to note that beside mirror focus, Alberti and Medve (2000) also discuss another multiple focus construction which they call “double focus”. In this construction we also find at least two foci per clause, but here focus is not on pairs or n-tuples, but on the first focused item. The second focused item falls into the scope of the first focus, i.e. will figure in the presuppositional part of the clause, as the following sentence illustrates:

(i) PÉTER mutatta be csak JÁNOSNAK Marit.
    Péter-NOM introduced-3SG PV only János-DAT Mari-ACC
    ‘PÉTER introduced Mari to (only) JÁNOS.’

The presupposition behind (i) is that someone introduced Mari to (only) János. Double focus constructions do not have equivalents among multiple questions. If we construct (i) with *wh*-items instead of foci, the result cannot be interpreted as a question with a parallel presupposition:

(ii) Ki mutatta be kinek Marit?
    who-NOM introduced-3SG PV who-DAT Mari-ACC
    ‘Who introduced Mari to someone, and who was that only person?’

This is due to the fact that *wh*-items by their very nature cannot stand in that part of a clause which is presupposed.
One of the earmarks of French in situ constructions is that the in situ \textit{wh}-element cannot be preceded by negation, quantifiers or modals due to the intervention effect that these items introduce (Chang 1997):

\begin{enumerate}
\item \textit{Il n’a pas rencontré qui?}
\begin{tabular}{l l}
he-NOM & NEG has not \\
\textit{qui} & who-ACC \\
\end{tabular}
\textit{‘Who did he not meet?’}
\item \textit{Il admire toujours qui?}
\begin{tabular}{l l l l l l l}
he-NOM & admire-3SG & always & who-ACC \\
\end{tabular}
\textit{‘Who does he always admire?’}
\end{enumerate}

The intervention effects are indicative of the fact that there is some kind of licensing relation between the \textit{<+wh>} $C^0$ head of the clause and the \textit{wh}-in situ element, which is destroyed by quantificational elements. Chapter 2 of this dissertation has shown that intervention effects are present in Hungarian as well: lexical quantifiers can be shown to prevent the checking relation between the \textit{wh}-item in Spec,FocP in single questions and the \textit{<+wh>} $C^0$ head of the clause:

\begin{enumerate}
\item \textit{Mindy kit hívtál meg?}
\begin{tabular}{l l}
always & who-ACC \\
invited-2SG & PV \\
\end{tabular}
\textit{‘Who did you invite always?’}
\end{enumerate}

The same quantificational elements, however, do not cause intervention effects when they occur between the postverbal \textit{wh}-item in Type II questions and the $C^0$ head of the clause, as the following examples illustrate:

\begin{enumerate}
\item \textit{Ki hívtott meg mindig a moziba kit?}
\begin{tabular}{l l l l l}
who-NOM & invited-3SG & PV & always & who-ACC \\
the cinema-INE & who-ACC \\
\end{tabular}
\textit{‘Who invited whom always to the cinema?’}
\item \textit{Ki mutatott be mindig kit kinek?}
\begin{tabular}{l l l l l l}
who-NOM & introduced-3SG & PV & always & who-ACC & who-DAT \\
\end{tabular}
\textit{‘Who introduced always whom to whom?’}
\item \textit{Melyik fiú hívt meg mindig melyik lányt melyik buliba?}
\begin{tabular}{l l l l l l l l l l l}
which boy-NOM & invited-3SG & PV & always & which girl-ACC & which party-INE \\
\end{tabular}
\textit{‘Which boy invited always which girl to which party?’}
\end{enumerate}

This shows that the licensing of the postverbal, in situ \textit{wh}-item does not involve \textit{<+wh>} feature movement to $C^0$ at LF, unlike the licensing of a preverbal \textit{wh}-item, which does (see Chapter 2).

As for the representation of Type II questions, on the basis of the above I put forth the following. In Type II questions, all \textit{wh}-items are interrogative \textit{wh}-items, i.e. they are morphologically complex: they have the interrogative empty question morpheme affixed to them which possesses the \textit{<+wh>} and \textit{<+f>} features, just as on a \textit{wh}-item in single questions:
The preverbal wh-item is found in Spec,FocP in overt syntax, where it checks its $<$+f$>$ against Foc$^0$. At LF, its $<$+wh$>$ feature moves to C$^0$ and gets checked there. The postverbal wh-item, on the other hand, although it has a similar morphological make-up as the preverbal item is licensed differently: it is defective in that its features are not licensed via movement to Spec,FocP and via raising to C$^0$. Rather, the focus feature is licensed as that of any postverbal focus item in mirror focus constructions, whatever mechanism is involved in these. The checking of the $<$+wh$>$ feature is more of a problem: we have shown with the help of (58) above that this feature does not raise to C$^0$. This is also expected on the basis of the fact that C$^0$ in Hungarian has a [−interpretable] feature: once it is checked, it disappears. This means that after it is checked by the $<$+wh$>$ feature of the preverbal wh-item, it is no longer there to check the features of other wh-items. Therefore it must be the case that the $<$+wh$>$ feature of the postverbal wh-item gets licensed in an unorthodox way, similarly to the $<$+f$>$ feature. I assume that the $<$+wh$>$ feature on this wh-item does not get checked by movement to any higher functional head. Rather, it is anaphorically related to/parasitic on the $<$+wh$>$ feature of the preverbal wh-item.

How to implement this idea is not clear to me. We can think about the relation between the wh-items in terms of agreement (or AGREE in Chomsky 1999). The anaphoric/parasitic nature of the $<$+wh$>$ feature on the postverbal wh-item is reflected in the fact that the second wh-item has to agree with other features of the preverbal wh-item as well (although not all: case feature agreement is not required). Or, put differently, the $<$+wh$>$ features of C$^0$, the preverbal and the postverbal wh-items all form one chain, and in order for this to happen there must be feature agreement between the respective items in other features as well.

This requirement is presumably the surface syntactic realization of some semantic requirement. It is argued by some, most recently by Krifka (1999), that semantics determines what can and what cannot constitute a multiple question. It seems that the number of things that can be asked in a clause is restricted: one clause can only ask for one thing. Therefore, multiple questions, in which we find multiple occurrences of wh-items are never “multiple” in the sense that they never involve questions about two unrelated constituents for example. The constituents have to be related in some ways. Thus we can pose a question about two (or more) members of one particular set for example, or, we can ask about individuals belonging to different sets, but only if these sets form participants of a single event. It seems that the syntactic restriction found in Type II questions is related to this requirement: all wh-items have to refer to one set of individuals.
4. The analysis of Type III and IV questions

In this section the structural properties of the last two types of questions will be discussed and compared: Type III and IV structures. Type III and IV questions correspond to the following constructions (repeated here from (19) above):

(19) a. Ki és mikor látta Marit? (Type III)
    who-NOM and when saw-3SG Mari-ACC
    ‘Who saw Mari and when?’

   b. Ki látta Marit és mikor? (Type IV)
    who-NOM saw-3SG Mari-ACC and when
    ‘Who saw Mari and when?’

The easily observable similarities and differences between these types necessitate a parallel discussion.

4.1. Type III and IV questions in the literature

The structures previous discussions attribute to Type III and IV questions are the following (based on Bánréti 1992):

(60) Type III: [&P[FocP kinek Ø] és [FocP hogyan V] (forward deletion)
     who-DAT   and   how

Type IV: [&P[FocP kinek V] és [FocP hogyan Ø]] (backward deletion)

According to (60), seemingly conjoined wh-phrases in a sentence are always the result of conjunction of two clauses (FocPs), with optional but preferred ellipsis in either the first (Type III) or the second conjunct (Type IV). This analysis places the two question types on parallel grounds, which is attractive. It suggests that except for the difference in the deletion sites the two questions do not differ in anything else.

This conception, however, is wrong. It can be easily shown that Type III and IV questions are different constructions with different syntactic structures. The following section will bring evidence for this claim from argument structure and agreement properties in Hungarian, and it will show that while Type III questions involve clause internal coordination of wh-phrases, Type IV questions involve clausal coordination with consequent ellipses.
4.2. A new analysis of Type III and IV questions

4.2.1. Differences between Type III and IV questions

In this section I will point to some important areas in which Type III and IV questions clearly show different properties. All these differences will be understood once we analyze Type III questions as sentences involving clause internal coordination of wh-phrases, and Type IV questions as an instance of clausal coordination accompanied by ellipsis.

One clearly visible difference between Type III and IV structures affects the argument structure of the base verb. Studies on ellipsis (e.g. Wilder 1997) agree on the point that although phonetically empty, ellipted sites do contribute to semantic interpretation. At the level of LF the ellipted parts of the sentence are recovered. According to Bánréti’s analysis, this implies that Type III and IV questions are identical at LF:

(61) a. Type III: [\&P_{\text{FocP}} \text{kinék segítettél}] \& [\text{FocP hogyan segítettél}]
   b. Type IV: [\&P_{\text{FocP}} \text{kinék segítettél}] \& [\text{FocP hogyan segítettél}]

In both clauses in both types of questions, the verbs have a fully saturated argument structure as the Projection Principle requires, which must hold at all levels of representation, including LF. In this respect it must be observed that in cases where both wh-phrases are arguments, Type III questions are fine but Type IV ones are not:

(62) a. Ki és kit szeretett?
   who-NOM and who-ACC loved-3SG
   ‘Who loved someone and who was it?’
   b. *Ki szeretett és kit?
   who-NOM loved-3SG and who-ACC
   ‘idem’

(63) a. Ki és kit ölt meg?
   who-NOM and who-ACC killed-3SG PV
   ‘Who killed someone and who was it?’
   b. *Ki ölt meg és kit?
   who-NOM killed-3SG PV and who-ACC
   ‘idem’

(64) a. Ki és hol lakik?
   who-NOM and where live-3SG
   ‘Who lives somewhere and where?’
   b. *Ki lakik és hol?
   who-NOM live-3SG and where
   ‘idem’

If the pairs have the same LF structures, it is impossible to relate the ungrammaticality of Type IV questions to the fact that we are dealing with argumental wh-phrases, which cannot be missing from clauses according to the
Projection Principle. Both (62a) and (62b) have the following representation after recovery of ellipted material:

(65) \([\text{Ki szeretett}] \; \text{és} \; [\text{kit szeretett}]?\]

who-NOM loved-3SG and who-ACC loved-3SG

As it stands, (65) violates the Projection Principle, since the first clause only contains a subject, but no overt object. The object term cannot be covert, since it cannot be a trace for lack of a binder, and it cannot be a pro because pro is only available for definite objects in Hungarian, i.e. known objects, and to have a known object in the first clause which is questioned in the second, is infelicitous:

This predicts that all sentences in (62)-(64) should be ungrammatical, because their first clause violates the Projection Principle (in the second clause, the subject can be represented by a pro, thus no violation arises there.) However, only Type IV sentences are ungrammatical. This proves that the representation in (61) is fine for Type IV questions, but is wrong for Type III ones. Type IV questions are indeed coordinated single questions with ellipsis in the second conjunct. Type III questions, however, are not coordinated clauses, but contain only one clause, in which all wh-phrases belong to one verb. This way there is no violation of the Projection Principle, since all arguments are present in the clause. The suggested representation for (62a) is therefore the following (for the structure of &Ps, see Kayne (1994) or Johannessen (1998)):

(67) \([\text{CP[\text{Ki és kit} szeretett]}]?\]

The importance of facts like (62)-(64) has not been recognized so far, presumably because of the prevailing studies of adjunct questions or verbs which can be interpreted both transitively and intransitively, like read. But even in the latter case, (68b) has a different meaning from (68a), as I indicate in the English translations:

(68) a. Ki és mit olvasott?
who-NOM and what-ACC read-3SG
‘Who has read something and what was it?’
b. Ki olvasott és mit?
who-NOM read-3SG and what-ACC
‘Who was engaged in reading and what was he reading?’

If (66b) were grammatical, it would occur with definite conjunction on the first verb due to the fact that object pro is a definite item. However, even definite conjugation on the verb does not make the sentence better:

(i) *Ki szerette pro\text{adj} és kit szerettet pro\text{sub}?\]
who-NOM loved-3SG.DEF and who-ACC loved-3SG.INDEF
The other difference between Type III and IV questions can be observed in the agreement properties of the base verb. The difference in agreement also suggests that in Type III questions all wh-arguments belong to the same verb. Consider the following full (non-ellipted) clausal coordination:

(69) Nem érdekel (hogy) mit csinálsz és hogyan csinál-od/*-sz.
    not interest-3SG (that) what-ACC do-2SG.INDEF and how do-2SG.DEF/*INDEF
    ‘I do not care what you do and how.’

Definiteness agreement in the second conjunct is obligatory (the object term is represented with a pro). If (69) is turned into a Type III structure by deleting the verb in the first conjunct, the result is expected to show the same agreement in the second conjunct, since that is not affected in any way by the ellipsis in the first. But this expectation is false; the grammatical sentence has the unexpected indefinite conjugation in the second conjunct:

(70) Nem érdekel (hogy) mit és hogyan csinál-sz/*-od.
    not interest-3SG (that) what-ACC and how do-2SG.INDEF/*DEF
    ‘I do not care what you do and how.’

This can only be the case if the verb in (70) agrees with mit ‘what’, which is an indefinite pronoun in Hungarian. This indicates that (70) is not derived by means of ellipsis, but there is only one embedded clause, whose verb has mit as its complement.

To sum up, in the last two sections I have listed arguments to the effect that Type III questions are real multiple questions in the sense that we find more than one wh-phrase in one single clause in them. Type IV questions on the other hand are conjoined single questions, which are a result of clausal coordination followed by ellipsis. The right structural representations are given in (71):

(71) a. Type III: [CP ... [FocP[&p{kinek & hogyan ] segítettél]]
    b. Type IV: [CP ... [&p{FocP{kinek segítettél} & [FocP{hogyan ∅ }]]

(71) indicates that Type IV questions do not in fact fall under the category of multiple questions, since they involve multiple clauses, with one single question in each. This means that these questions have the syntax of single questions (as described in Chapter 2), and nothing special needs to be said about them.

4.2.2. Clause internal coordination in Type III questions: parallels with quantifiers

Once we have established that Type III questions involve coordination of wh-phrases, we face a very serious problem, which Bárányi (1992) did not encounter: how can categorically distinct items be coordinated? In most usual cases of coordination the category of the coordinates must be the same together with their theta-roles if they
have any. This is the so-called Law of Coordination of Likes (Williams 1981):

(72) *I helped Péter and quickly. [NP & AP]

However, there are a great many exceptions to this law. One frequent example of unlike category coordination can be found when the coordinates have predicative function, well-described and analyzed in Sag et al. (1985):

(73) Pat is either stupid or a liar. [AP & NP]

The other type, more closely related to our Hungarian coordination facts, can be found in many languages including English:

(74) John met Mary and in her house! [NP & PP]

This example of unlike category coordination is licensed only if both coordinates are emphasized and the sentence describes an unexpected state of affairs (indicated here by the exclamation mark).

It seems to be true across many languages that emphatic operators are by and large conjoinable regardless of their different categorial status, although languages do differ as to what kind of quantifiers and environments are allowed. While English allows for (73/74), it does not allow for coordination of unlike category wh-phrases (section 1.3 above). Hungarian is a language where all kinds of quantifiers can be coordinated within a clause, provided they are stressed (marked by '):

(75) Ide 'mindenki és 'mindig bejöhet.  
here everyone-NOM and always PV-come-POT-3SG  
‘Everyone can enter here and this holds for all times.’

(76) Ide 'bárki és 'bármikor bejöhet.  
here anyone-NOM and any time PV-come-POT-3SG  
‘Anyone can enter here and this holds for all times.’

(77) Ide 'senki és 'semmikor nem jöhet be.  
here no-one-NOM and never PV-come-POT-3SG PV  
‘No-one can enter here and this holds for all times.’

Coordinated quantifiers can also occur in the postverbal positions as well:

(78) (?)Akkor hívjuk be 'Pétert és 'hat órára!  
then call-IMP-1PL PV Péter-ACC and six o’clock-SUB  
‘Then let’s call in Péter and at six.’

(79) (?)Nem látattam 'senkit és 'semmikor.  
not saw-1SG no-one-ACC and never  
‘I didn’t see anyone at any time.’

We see that emphatic stress makes categorial differences invisible: the
[&P[XP]&[YP]] pattern is available for clausal-internal coordination as long as both XP and YP carry emphatic stress.

How one should account for these coordination facts syntactically is far from clear. The phenomenon might be partly phonological in nature. One way of interpreting this pattern would be to say that for certain mechanisms emphatic quantifiers are recognized as items with a common ‘Q’ category/function, and therefore can be coordinated with any item with a similar ‘Q’ category/function. This is reminiscent in a way of what was observed in (73/74); there it was shown that unlike categories with the same predicative function can also coordinate. This shows that for coordination, it is not only the syntactic category of the coordinates that counts.

It is not strange thus that coordination is possible in examples (75-77). There are, however, further problems that one has to tackle. One important question is how the traces of the quantifiers get bound in clause internal coordination? If conjuncts cannot c-command out of the phrase of coordination (marked &P below), their respective traces are left unbound:

(80) 
[Foc [&P kinék_i és hogyan_j] segítettél_t_t]
who-DAT and how helped-2SG

A related question is how quantifiers in clause internal coordination take scope, both with respect to each other and with respect to the rest of the clause.

This, while an important issue, is not primarily related to the study of wh-items in general. Any account of coordination has to solve these problems. As the answer largely depends on the internal structure of &P, on which there is little consensus in the literature, I do not tackle the problems in fine detail.

As far as the syntactic derivation of these constituents is concerned, I assume that there is a &P generated via Merge, in Spec,FocP. This &P has two open positions to fill: the specifier and the complement position of &. The wh-items are moved to these open slots in the course of the derivation resulting in the following structures before verb movement up to Foc:

(81) a. [FocP [&P [_ [& _ és _ ]] [Foc [VP kinék segítettél hogyan]]]]
b. [FocP [&P kinék_i [&_ és _ ]] [Foc [VP t, segítettél hogyan]]]
c. [FocP [&P kinék_i [&_ és hogyan_j] [Foc [VP t, segítettél t]]]]

As far as syntactic licensing is concerned, both wh-items have a <+f> and a <+wh> features to check. I take it that these features take part in the usual checking mechanism (against Foc and C) in a conjoined manner, i.e. as one entity.

5. Summary of multiple questions

In this chapter I have reviewed and analyzed all the different types of multiple questions that occur in Hungarian. It was shown that there are three different types of
multiple questions in which we find more than one wh-item in a single clause (Type I, II, III). Putting aside Type III conjoined questions, where wh-items form one syntactic constituent, in effect neither of the other two multiple questions (Type I and Type II) contains multiple occurrences of wh-items that are like the wh-items in single questions. This is due to the fact that one question clause can only ask about one thing. Syntactically, this also has its reflex. In Type I questions there is always only one wh-item with properties like those of a wh-item in a single question, while the others are interpreted as universal quantifiers and are not licensed in the syntax as ordinary question words. In Type II questions, there is always only one wh-item that is licensed the way wh-items in single questions are, while the others are licensed in other ways, similar to postverbal focus. This suggests that in Hungarian, the syntax of constituent questions is as I proposed in the previous chapter: the syntactic licenser of question words is the <+wh> feature on C⁰. Being uninterpretable, this feature disappears after checking takes place with one wh-element. From this it follows that C⁰ is capable of licensing only one wh-item, and other wh-items therefore have to appear with other interpretations or be licensed by other means. Since this is the case found in Hungarian, the present study of multiple questions supports the result of the previous chapter.
4 The multiple partitive use of bare \textit{wh}-pronouns

1. Introduction to the data: basic properties of the multiple partitive construction

Multiple partitives are constructions in which we find \textit{wh}-phrases in two or more juxtaposed clauses. Hungarian is one of the languages where multiple partitives are quite widespread. Beside Hungarian, the pattern of multiple partitives can be found in various other languages as well, in some of them with slightly different properties.

1.1. Properties of the Hungarian construction

An illustrative example of the multiple partitive construction is given in (1):

(1) Ki a boltba ment, ki a piacra (ment).
    who-NOM the shop-ILL went-3SG who-NOM the market-SUB (went-3SG)
    ‘Some (people) went to the shop, some (= the others) went to the market.’

Multiple partitive constructions always make reference to a given set of people. (1) is used, for example, when both the speaker and the hearer knows that some people, say Mari, Anna, Béla and Péter went to do the shopping. In this situation, (1) specifies that among these contextually given people some went to the shop and the others went to the market. When there is no set provided by previous discourse, constructions like (1) have a generic interpretation, i.e. the given set is understood to be all human beings:

(2) Ki lassan dolgozik, ki gyorsan.
    who-NOM slowly work-3SG who-NOM fast
    ‘Some people work slowly, others work fast.’

When we look at the syntactic ingredients of multiple partitives, we notice that these productive constructions always contain juxtaposed clauses with parallel structures. The constant ingredient of these clauses are \textit{wh}-items, which have to be the same in all clauses within a sentence. In Hungarian it is also the case that the \textit{wh}-items are fronted to the beginning of each clause. One would expect that the interpretation of these clauses therefore will be that of questions. But this is not the case. The \textit{wh}-items refer to sets of people, but these sets are not questioned. As the translation of (1) shows, the meaning of the construction can be best captured by using the expressions \textit{some} – \textit{the others} to denote the set of people in each clause in
English, that is, the *wh*-items are functioning here as indefinite expressions. It is important, however, to note right away that the *wh*-items are not just used as ordinary indefinite phrases like *some*. There is an extra ingredient of meaning that the construction with *wh*-items has, which can be nicely seen if we compare a sentence like (1) with one where the position of *wh*-items is filled with *some*-type quantifiers:

(1) **Ki a boltba ment, ki a piacra.**  
    who-NOM the shop-ILL went-3SG who-NOM the market-SUB  
    ‘Some (people) went to the shop, some (=the others) went to the market.’

(3) **Valaki a boltba ment, valaki a piacra.**  
    someone-NOM the shop-ILL went-3SG someone-NOM the market-SUB  
    ‘Someone went to the shop, someone went to the market.’

While (1) is our earlier example of a multiple partitive, (3) contains *valaki* ‘someone’ in positions parallel to that of the *wh*-items. The two sentences do not mean the same, as the translations also reveal. They differ in at least two ways. First, (3) can only mean that there was exactly one person going to the shop, and exactly one going to the market, contrary to (1), which does not say anything about the number of people going to either place. Second, if there is a known set of people present in the discourse when (1)/(3) are uttered, (1) necessarily characterizes that set fully with respect to all individuals in this set by listing all subsets there are, while (3) mentions two individuals from the discourse set, which might or might not be all the individuals involved. (3) therefore can be said to merely refer to what two individuals were doing, while (1) gives a full characterization. To make it even more clear, (1) cannot be used in a situation in which among the contextually given people, some did not go to the shop or to the market but, say, went to the library. (1) cannot be continued the following way:

(4) **Ki a boltba ment, ki a piacra.**  
    who-NOM the shop-ILL went-3SG who-NOM the market-SUB  
    #A többiek könyvtárba mentek.  
    the rest-NOM the library-ILL went-3PL  
    ‘Some (people) went to the shop, some went to the market. The rest went to the library.’

The requirement that the multiple partitive construction has to give an exhaustive characterization of a contextually determined set I will refer to as the *exhaustivity* of the construction. Note that (3) differs from (1) in this property as well: (3) can be continued with a sentence specifying further individuals in the discourse:
Exhaustivity is a special characteristic property of Hungarian multiple partitive constructions. Due to this property, the translation of these sentences will be approximated with *some* — *the others* in English throughout this chapter. It has to be noted though that unlike in the clauses with *some* — *the others* in English, all clauses in a Hungarian multiple partitive contains the same *wh*-element.

The multiple partitive construction in Hungarian requires a multiplicity of clauses. One clause cannot stand on its own as illustrated in (6a). The possible number of clauses is in principle infinite — any number of clauses can be used (6b), with the necessary requirement that each clause uses the same *wh*-item (6c), and the individuals referred to by these *wh*-items in each clause added together exhaustively make up the contextually given set:

(6) a. *Ki a boltba ment. 
   who-NOM the shop-ILL went-3SG 
   intended: ‘Some went to the shop.’

b. Ki a boltba ment, ki a piacra, 
   who-NOM the shop-ILL went-3SG who-NOM the market-SUB 
   ki könyvtárba, 
   who-NOM the library-ILL 
   ki úszni. 
   who-NOM to swim 
   ‘Some went to the shop, the others to the market or the library or to swim.’

c. *Ki a boltba ment, a többi a piacra. 
   who-NOM the shop-ILL went-3SG the rest-NOM the market-SUB 
   intended: ‘Some went to the shop, the rest to the market.’

The juxtaposed clauses in multiple partitives must always contrast in some property. *Contrast* is absolutely necessary. The two sets referred to by the *wh*-items cannot have the same predicate. Consider the ungrammaticality of (7):

(7) *Ki a boltba ment, ki szintén oda. 
   who-NOM the shop-ILL went-3SG who-NOM also there 
   ‘Some went to the shop, the others also went there.’

Another property of the Hungarian multiple partitive construction is that the
juxtaposed clauses are not linked via run-of-the-mill disjunctive or conjunctive coordinators. Their inclusion in the sentence renders that ungrammatical:

(8) Ki a boltba ment, *és/vagy/de ki a piacra.
    who-NOM the shop-ILL went-3SG and/or but who-NOM the market-SUB

Multiple partitives in Hungarian productively occur with the following wh-items: *ki ‘who’, mi ‘what’, hol ‘where’, mikor ‘when’. Ki ‘who’ was illustrated in the examples above, (9) exemplifies the other cases:

(9) a. Az elintéznivalók közül minek Péter járt utána, minek Mari.  
    the errands from what-DAT Péter-NOM went PV what-DAT Mari-NOM  
    ‘Out of the many errands Péter ran some and Mari ran the rest.’

b. Hol kapható Eszterházy új könyve, hol nem.
    where available Eszterházy-NOM new book-POS3SG where not
    ‘At some places Eszterházy's new book is available, at others it is not.’

c. Mikor Mari, mikor Péter megy el hamarabb.
    when Mari-NOM when Péter-NOM goes-3SG PV earlier
    ‘Sometimes Mari, the other times Péter leaves earlier.’

After seeing the most basic properties of the Hungarian multiple partitive construction, we can summarize these in the following points:

(10) The properties of the Hungarian multiple partitive constructions
    (i) wh-items occur in a multiplicity of juxtaposed clauses with parallel structure
    (ii) the clauses necessarily contain contrasted predicates
    (iii) the sets denoted by the wh-items must exhaust a contextually given discourse set
    (iv) no coordinator element can be spelled out between the clauses
    (v) various wh-items can productively participate in the construction, in any grammatical function

1.2. Crosslinguistic examples

Hungarian is not the only language with multiple partitives. In order to lay ground for a systematic study of this construction type, in what follows I also discuss other languages that have this pattern. The languages that are discussed below are mentioned in the descriptive study on indefinite pronouns by Haspelmath (1997), which is the first and to my knowledge only mention of this construction type in the literature. According to Haspelmath (1997) multiple partitives occur in Hungarian, Finnish, Mansi (a Finno-Ugrian language), Russian, literary French, Hebrew, Georgian and Turkish and Kilivila (an Austronesian tongue). As I will show, the construction at hand is not uniform in all these languages: we minimally have to distinguish between two subtypes of multiple partitives because they differ in some
properties. The most important one out of these is the property that some (the Hungarian-type ones) are exhaustive in their characterization of the discourse set, while others (the French-type ones) are not.

1.2.1. Preliminary notes
As I noted at the outset, multiple partitive constructions in Hungarian are productive and they are part of the colloquial language as well as more literary registers. This, however, is not the same in all other languages with multiple partitives. In some languages this construction has a highly archaic taste, it is either not part of the spoken language or of productive language use any more. In others the construction is felt to be slightly archaic, but this does not mean that the construction is idiomatic, i.e. lexicalized. Speakers do have very clear and subtle judgements about the construction.

1.2.2. Hungarian-type multiple partitives (Finnish, Russian)
Checking Haspelmath’s (1997) list of languages with multiple partitives with respect to properties (i-v) in (10) it turns out that only Finnish and Russian conform to the Hungarian pattern.

Let’s start illustrating multiple partitives from a language genetically related to Hungarian, Finnish. The two share Finno-Ugric origins. Finno-Ugric languages seem to exhibit multiple partitives (for Mansi, see Beke 1913-1914). The Finnish (11a) is from Karttunen and Peters (1980), (11b) and (11c) were provided and judged by Krista Ojutkangas, Anitta Viinikka-Kallinen and Anders Holmberg (p.c.):

(11) a. Tuuli puhaltaa milloin lännestä, milloin idästä.
    ‘The wind blows, sometimes from the west, the other times from the east.’

b. ...Toisinaan tuuli puhaltaa etelästä.
    ‘Other times the wind blows from the south.’

c. Menimme eri puolille tavarataloja, kuka kirjaosastolle, kuka vaateosastolle.
    ‘We went to different parts of the store, some went to the book department, the others to the clothes department.’

d. Päiväkoti on täynnä puuhailua, missä luetaan satuja, kindergarten-NOM is full activity where read-PASS tales-ACC (*ja) missä pelataan pelejä.
    (and) where play-PASS games-ACC
    ‘The kindergarten is full of activities, in one place tales are read, in another games are played.’

Exhaustivity is present in Finnish, just like in Hungarian: (11a) cannot be used in a situation in which the wind blows from more than two directions. (11a) can only be
truthfully used if the wind does not blow from the north or south, only from the directions mentioned. Thus the sentence in (11b) cannot be added after a sentence like (11a). Multiplicity of the clauses, with necessary contrast is also required, and no coordinator element can be spelled out between the clauses, as (11d) demonstrates. Finnish multiple partitives therefore have exactly the same properties that the Hungarian ones do, (i-v) in (10).

The other language that exhibits Hungarian-type behaviour is Russian. Multiple partitive constructions are colloquial in Russian, consisting minimally of two clauses with *wh*-items, with contrasted predicates in each of them. The construction in Russian can also (although with varying grammaticality) occur with various *wh*-items, out of which *kto* ‘who’ is undoubtably the best, but some others can also be used (Elena Rudnitskaya, Irina van Gelderen, Vladislav Rapoport and Arthur Stepanov p.c.):

(12) a. Kto ljubit koncerty, (a) kto predpočitajet xodit’
who-NOM like-3SG concerts-ACC (but) who-NOM prefer-3SG go-INF
drink-INF beer-ACC
‘Some like concerts, the others prefer to go to drink beer.’
b. ...# A drugije ljub’at smotret’ televizor.
but others-NOM like-3PL watch-INF television-ACC
‘Others still like to watch television.’
c. ‘Iz vsex podarkov, čto mama prinesla
from all presents what-ACC mother-NOM brought-3SG
(a) čto papa.
but what-ACC father-NOM
‘From all the presents, some were brought by mother, the others by father.’
d. On byl v mnogix magazinax, gde mjjaso kupil
he-NOM was in many shops where meat-ACC bought-3SG
(a) gde syr.
(but) where cheese-ACC
‘He was in many shops, at some he bought meat, at the others, cheese.’
e. Ptitsy uletali, kogda na vostok (a) kogda na zapad.
birds-NOM flew-3PL when to east (but) when to west
‘Birds flew away, sometimes to the east and other times to the west.’

As can be seen from the examples here, čto ‘what’, gde ‘where’ and kogda ‘when’ are worse than *kto* ‘who’ in multiple partitives, although not for all speakers. These examples, however, improve if the clauses are shorter and if they appear with an overt a ‘but’ coordinator:
(12) c'. Iz vseh podarkov prines čto odin a čto drugoj.  
from all presents brought-3SG what-ACC one-NOM but what-ACC other-NOM  
‘From all the presents, the one brought some, the others the rest.’

Note that no other coordinator, except a ‘but’ is possible between the clauses; i ‘and’ ili ‘or’ can never occur. According to my informants, these examples are exhaustive. (12a) for example, referring to a previously established set of people, states that everyone either likes concerts, or to drink beer. It cannot be that there are people in the set who like to do something else, like watching TV. Therefore (12a) cannot be continued with (12b). Russian therefore can be said to have Hungarian-type multiple partitives, with properties (i-v) in (10), although the patterns with wh-items other than who are less wide-spread and presumably on their way out of productive use.

1.2.3. Different patterns: French-type multiple partitives (French, Italian, Hebrew, Georgian)

As opposed to Finnish and Russian which seem to closely parallel Hungarian, multiple partitives in French, Italian, Hebrew and Georgian differ in some properties listed in (10) above. These are property (iii) and (v): exhaustivity and the number of wh-items that can be used in these languages in multiple partitive constructions. French, Italian, Hebrew and Georgian multiple partitives do not exhaustively characterize the set of individuals present in the discourse and the construction is much more restricted in that only the wh-item ‘who’ can be used in these constructions in these languages.

Starting out with an Indo-European language, French exhibits multiple partitives, but, as opposed to Hungarian-type languages, these examples are not part of everyday, informal French. Rather, they feel archaic and they belong to the written, literary register. (13a) is from Grevisse (1986), (13b) and (13c) by Veronique van Gelderen and Johan Rooryck (p.c.):

(13) a. Qui apportait un fromage, qui un sac de noix,  
who-NOM brought-3SG a cheese-ACC who-NOM a bag of nuts-ACC  
qui un quartier de chèvre.  
who-NOM a piece of goat meat-ACC  
‘One brought a piece of cheese, one a bag of nuts, one a piece of goat meat.’

b. …D’autres encore amenaien du vin.  
others-NOM still brought-3SG wine-ACC  
‘Others still brought wine.’

c. Les professeurs rentraient chez eux, qui à Paris,  
the professors-NOM returned-3PL to them who-NOM to Paris  
qui à Bruxelles.  
who-NOM to Brussels  
‘The professors were going home, some to Paris, others to Brussels.’
In (13a) and (13c) we find ellipsis in many clauses with *wh*-items. As a rule, in French multiple partitives all clauses have to contain ellipsis except for the first clause, which may be a full one. In the translation of (13a) we also see that the *wh*-items can denote exactly one individual, not having a plural meaning. (13a), moreover, is an example without exhaustivity: it need not be the case that the set of contextually relevant people contains only three individuals. The continuation in (13b) is perfectly natural. The French construction is restricted in what *wh*-items it can use as well: it can only figure with *qui* ‘who’, but no other *wh*-item. *Qui* can occur with any case. The following shows a dative object:

(13) d. Et aux moujiks accourus, il distribuait à qui une jambe
and to moujiks-NOM running he-NOM distributed-3SG to who a leg-ACC
à qui un bras,
to who an arm-ACC
‘And to the moujiks who came running, to some he gave a leg, to some an arm.’

_Trèsor de la langue française_, p. 726

‘And’ coordinators can be spelled out between the clauses in French, like in the following example:

(13) e. l’ auditoire gémit, en voyant, dans l’ enfer tout ouvert,
the spectators-NOM groaned-3PL seeing in the hell all open
qui son père et qui sa mère,
who-NOM his father-ACC and who-NOM his mother-ACC
qui sa grand-mère et qui sa soeur.
who-NOM his grandmother-ACC and who-NOM his sister-ACC
‘The spectators groaned seeing something in the open hell, some saw his father, some his mother, some his grandmother and some his sister.’

_Trèsor de la langue française_, p. 727

French therefore differs from Hungarian in property (iii), (iv) and (v) in the list in (10): multiple partitives in French are not exhaustive, an ‘and’ coordinator can be spelled out, and the construction is restricted to the *wh*-item ‘who’ only. The fact that multiplicity of clauses is required, with necessary contrast between them is the same as in Hungarian.

The pattern exhibited by French closely resembles the one found in Italian. In Italian, only *chi* ‘who’ can be used in multiple partitives, and only in subject function. (14a) shows a grammatical sentence with a *chi* subject, and (14b) an ungrammatical one with an object *wh*-item (Federico Damonte, p.c.):

(14) a. Chi leggeva il giornale, chi comprava fiori.
who-NOM read-3SG the paper-ACC who-NOM bought-3SG flowers-ACC
‘Some (people) read the paper and some others bought flowers.’
b. *Cosa Gianni ha comprato, cosa Maria.

\text{what-ACC Gianni-NOM has bought what-ACC Maria-NOM}

‘Some (of them) Gianni bought, and some others Maria.’

The interpretation of sentences like (14a) is not like in Hungarian: these sentences are not exhaustive with respect to the people who make up the discourse set. It is possible to follow up on the utterance in (14a) with the following clause:

(14) c. E gli altri andavano al ristorante.

\text{and the others-NOM went-3PL to restaurant}

‘And the others went to a restaurant.’

Just like in French, an ‘and’ coordinator can be spelled out in between the clauses, especially when there are more clauses than just two:

(14) d. Chi leggeva il giornale, chi comprava fiori,

\text{who-NOM read-3SG the paper-ACC who-NOM bought-3SG flowers-ACC}

e chi non faceva nulla.

\text{and who-NOM not did nothing-ACC}

‘Some (people) read the paper, some bought flowers and some did not do anything.’

The pattern in Italian thus differs from Hungarian in properties (iii), (iv) and (v) in (10) above: Italian multiple partitives are not exhaustive, they can involve an ‘and’ coordinator and they are restricted to the \textit{wh}-element \textit{chi} ‘who’.

Another language with similar properties is Hebrew. Hebrew has multiple partitives such as the following (Ron Artstein and Ivy Sichel p.c.):

(15) a. ha-gvarim yac’u li-kniyot, mi la-makolet

\text{the-men-NOM went.out to.shopping who-NOM to.the-grocery}

\text{mi la-Suk, u-mi beemcaut ha-maxSev.}

\text{the-men-NOM to.the-market and-who-NOM through the computer}

‘The men went to do the shopping, some to the grocery, some to the market and some through the computer.’

b. ha-yeladim hizminu orxim, mi et dodat-o

\text{the-children-NOM invited quests who-NOM ACC aunt-his}

\text{mi et savat-o.}

\text{who-NOM ACC grandma-his}

‘The children invited quests, some his aunt, some his grandma.’

c. *ha-mefakdim hiku et ha-xayalim,

\text{the-commanders-NOM hit ACC the-soldiers}

\text{ha-memkaf et mi, ha-samal et mi.}

\text{the-squad.commander-NOM ACC who the-sergeant-NOM ACC who}

‘The commanders hit the soldiers, the squad commander some of them, the sergeant others.’
The construction is restricted to archaic literary Hebrew. Unlike French, Hebrew does not allow any wh-item in multiple partitives to appear in a full clause: all clauses with wh-items are elliptical and the whole construction has to be preceded by a matrix clause that introduces the set of individuals in the discourse. Just like French, Hebrew has multiple partitives with mi ‘who’ only, no other wh-item can be used. Moreover, the wh-items must always be subjects (15c). Exhaustivity is missing as well: (15b) can be used in a situation in which there were children who did not invite either their aunt or their grandma, but they invited someone else, or no one at all (as long as these children were not in the majority). The only possible coordinator between the clauses is u ‘and’, which becomes almost necessary if we coordinate more than two clauses.

Hebrew multiple partitives differ therefore from Hungarian in three of the properties listed in (10): in property (iii), (iv) and (v). They are not exhaustive, they can contain ‘and’ coordinators and they are restricted to ‘who’ in subject positions.

Georgian (a language unrelated to the hitherto discussed language families) also has multiple partitives. Illustrative examples are in (16). (16a) is from Hapembath (1997), (16b–e) from Marika Butskhrikidze (p.c.).

(16) a. Vin puls eloda, vin c’erils, who-NOM money-DAT waited-3SG who-NOM letter-DAT vin gazeteb. ‘Some people waited for money, some for letters, some for newspapers.’

b. Danarçenebi elodnen p’urs. others-NOM waited-3PL bread-DAT ‘Others waited for bread.’

c. Vin maYaziaši c’avida, (da) vin bazarši. who-NOM shop-INE went-3SG (and) who-NOM market-INE ‘Some people went to the shop, others to the market.’

d. *Jonma dainaxa vin, Pit’erma vin. Jon-ERG saw-3SG who-ACC Pit’er-ERG who-ACC ‘Jon saw some, Pit’er others.’

e. *Vin Jonma dainaxa, vin Pit’erma. who-ACC Jon-ERG saw-3SG who-ACC Pit’er-ERG ‘idem’

Just like French and Hebrew, Georgian multiple partitives are restricted to the wh-item vin ‘who’. No other wh-item can be used in this language in multiple partitive structures, and the wh-item cannot be anything else but the subject of the clause (16c,d). The grammatical sentences in (16) are also not judged necessarily exhaustive. (16a) can be continued with (16b), where another group of individuals of the discourse group is mentioned. As indicated in (16c), it is possible to spell out the coordinator da ‘and’ between the clauses hosting the wh-items.

Georgian thus differs from Hungarian in properties (iii), (iv) and (v), just like French, Italian and Hebrew do. The difference between these three languages is that
while French and Hebrew multiple partitives are rather archaic and literary, and prefer ellipted clauses, Georgian multiple partitives are productively used in colloquial utterances as well, and allow for non-ellipted clauses.

Before closing this section, it must be mentioned that Haspelmath (1997) mentions another language with multiple partitives, Turkish. (17a) is from Haspelmath (1997) and (17b) is by Murat Kural (p.c.):

(17)  

a. Kimi adak, kimi matem için topla-n-di.  
who-NOM sacrifice who-NOM mourning for gather-REFL-PAST(3SG)  
'Some gathered for a sacrifice, some for mourning.'

b. Kimileri dukkan-gi, kimileri de pazar.  
who-PL-NOM shop-DAT went who-PL-NOM to market-DAT  
'Some went to the shop, some to the market.'

Turkish, just like French and Hebrew can only use kimi ‘who’ in this construction. Also, according to native speaker judgements, the examples in (17) are not exhaustive: they can be used in a situation in which some people gathered for things other than sacrifice or mourning, or in which they went elsewhere than to the shop or to the market. However, before concluding that Turkish has French-type multiple partitives, we have to observe that the multiplicity condition does not seem to hold in this construction: kimi can stand in any single clause on its own, meaning ‘some’ in itself, as in (17c) for example, although in this domain we can find quite some speaker variation (Meltem Kelepir, Nihan Ketrez, Murat Kural, Balkız Ozturk, Gulsat Tosun p.c.):

(17)  

c. Kimi matem için topla-n-di.  
who-NOM mourning for gather-REFL-PAST(3SG)  
'Some (people) gathered for mourning.'

The multiplicity requirement is a defining property of multiple partitives. In all languages reviewed so far we have always found multiple parallel clauses. As (6a) has shown for Hungarian, a single clause with a wh-item does not live on its own. This is why Haspelmath (1997) calls these constructions multiple, i.e. they necessarily have to contain multiple instances of wh-items, in multiple clauses. Turkish, as (17c) shows does not confirm to this pattern, which means that Turkish does not have multiple partitives. I put aside Turkish in the rest of the discussion.

This section has shown that there are a couple of languages that do have the pattern of multiple partitives, in that they contain wh-items as initial constituents in necessarily multiple clauses, meaning some. French, Hebrew and Georgian all conform to this pattern. However, unlike Hungarian, these languages do not interpret this construction as a necessarily exhaustive characterization of a discourse set. Lack of exhaustivity in these languages is always coupled with another property being different from Hungarian as well: the construction is restricted to the wh-item ‘who’ and it is possible to spell out an overt ‘and’ conjunctor between the clauses as well. I sum up these findings in the following section, together with the Hungarian pattern.
1.2.4. Summary of patterns of multiple partitives
In this section so far I gave a detailed survey of languages with multiple partitives. I have shown that there are two basic types of multiple partitives. Hungarian-type multiple partitive constructions are always exhaustive, we can find them with a number of wh-items, and the clauses cannot be linked via overt conjunctors. French-type languages exhibit multiple partitives without exhaustivity, restricted to one wh-item (‘who’). Besides, an overt ‘and’ coordinator can always appear between the clauses and the construction is mostly archaic/literary. To give a summary of the data from these languages, Table 1 shows the results of the crosslinguistic investigation with respect to the properties exhibited by the Hungarian construction, listed in (8), repeated here for convenience:

(10) The properties of the Hungarian multiple partitive constructions
(i) wh-items occur in a multiplicity of juxtaposed clauses with parallel structure
(ii) the clauses necessarily contain contrasted predicates
(iii) the sets denoted by the wh-items must exhaust a contextually given discourse set
(iv) no coordinator element can be spelled out between the clauses
(v) various wh-items can productively participate in the construction, in any function

Table 1. Properties of languages with multiple partitives (* marks archaic/literary register)

<table>
<thead>
<tr>
<th>properties</th>
<th>Hungarian-type:</th>
<th>French-type:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Hungarian, Finnish, Russian</td>
<td>French*, Italian, Hebrew*, Georgian</td>
</tr>
<tr>
<td>(i) multiplicity</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>(ii) contrast</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>(iii) exhaustion</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>(iv) overt ‘and’ possible</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>(v) various wh-items, in any function</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>

This table clearly shows that as far as the crucial properties listed in (10) are concerned, languages differ in the last three of these: the presence or absence of exhaustivity, overt coordinators and various wh-items that can be used. On the basis of these differences two distinct patterns can be distinguished: the Hungarian pattern and the French pattern, both exemplified by various (and also genetically unrelated) languages.

The remainder of this chapter is devoted to a detailed characterization and analysis of the Hungarian and French-type multiple partitives. Due to the fact that I do not have access to more languages with multiple partitives than the languages discussed earlier in this section, my aim is not to give a full description and analysis of multiple partitives per se, but to provide an analysis for the two types of partitives
that can be recognized on the basis of these. I also do not aim at predicting the existence of multiple partitives in a given language. For that to be possible one would need more samples from a larger coverage of languages, and a better understanding of certain syntactic phenomena in each of these languages.

Some overall patterns, however, can be discerned when looking at Table 1. This might give rise to some interesting generalizations, although the corpus is too small to take these as definitive, let alone build some kind of theory on the basis of these.

One such generalization arises when we look at languages with Hungarian-type multiple partitives: these all exhibit overt wh-movement in some syntactic environments, in this case, in questions (for Hungarian see Chapter 2, for Finnish see Vilkuna (1989), for Russian see King (1993)). This generalization could also be indirectly supported by the fact that languages like Chinese, Japanese or Hindi, where wh-items are in situ, do not have multiple partitives (Lisa Cheng, Naoki Fukui, Veneeta Dayal p.c. respectively). For illustration, see the following Chinese sentence in (18). Although it is possible to juxtapose two clauses with one wh-item in each, the meaning of the construction is that of a conditional (Cheng and Huang 1998), and the wh-items do not refer to subsets of a discourse set:

(18) shéi xian lai, shéi xian chi
who-NOM first come-3SG who-NOM first eat-3SG
‘If X comes first, X eats first.’

It seems therefore that languages where the wh-items cannot move in overt syntax do not have multiple partitive structures. Due to the aforementioned problem about the size of the corpus I leave this generalization at this, and do not use it in further argumentation.

2. Further syntactic characteristics of Hungarian-type multiple partitive constructions

In this section I demonstrate some further properties of multiple partitives, those of the Hungarian type. Some properties that characterize these constructions also characterize French-type ones, as will be pointed out, but I will put the latter aside until section 3.2. In the present section I only deal with Hungarian and Hungarian-type multiple partitives. These are the ones that give an exhaustive characterization of the discourse set. First I examine structural properties of the construction (section 2.1), then I illustrate what restrictions one can find concerning the availability of different wh-items (section 2.2).
2.1. The parallelism requirement

2.1.1. Parallelism between the \textit{wh}-items

One striking property of the multiple partitive construction is the parallelism one finds between the clauses that make up this construction, in both types of multiple partitives alike.

Parallelism is absolute in that each clause has to contain the same \textit{wh}-item, like in (19a). No \textit{wh}-item can be replaced by a non-\textit{wh} phrase (19b), or a different \textit{wh}-item (19c).

(19)   \begin{aligned}
a. & Ki a boltba ment, ki a piacra.  
    & who-NOM the shop-ILL. went-3SG who-NOM the market-SUB  
    & ‘Some went to the shop, the others to the market.’  
b. & *Ki a boltba ment, a tôbbiek a piacra.  
    & who-NOM the shop-ILL. went-3SG the rest-NOM the market-SUB  
c. & *Ki a boltba ment, mit a piacon vett.  
    & who-NOM the shop-ILL. went-3SG what-ACC the market-SUP bought-3SG  
    & ‘Some people went to the shop, bought some things at the market.’
\end{aligned}

That (19c) is completely gibberish follows from the way multiple partitives are used. Since this construction is used to characterize a (homogeneous) set of individuals (set of persons, places, times etc.), the result is always that each subset of this larger set will contain the same kind of individuals. If we talk about persons, \textit{ki} ‘who’ has to be used in all clauses throughout, if we talk about places, \textit{hol} ‘where’ has to be used, etc. That is, we cannot use different \textit{wh}-items as a result.

Beside the fact that the \textit{wh}-items have to be identical, usually they also agree in case and theta-roles as well, although this is not an absolute requirement. The following sentences give examples of situations in which this is not the case. These sentences sound a bit strained, but they are not ungrammatical.

(20)   \begin{aligned}
a. & ?Ki az apja nevét kapta,  
    & who-NOM the father-POSS.3SG name-ACC got-3SG  
    & kit a nagyapja után neveztek el.  
    & who-ACC the grandfather-POSS.3SG after named-3PL PV  
    & ‘Some got their father’s name, the others were named after their grandfather.’  
b. & ?Ki elfutott, kinek földbe gyökerezett a lába.  
    & who-NOM PV-ran-3SG who-DAT earth-ILL rooted-3SG the foot-POSS.3SG-NOM  
    & ‘Some ran away, the others were nailed to the ground.’
\end{aligned}

2.1.2. Parallelism in structure

Beside the parallelism in form, \textit{wh}-items are also parallel in their structural position across the clauses in multiple partitives. They occupy the same position in every clause. In this section I examine what position this is in Hungarian multiple
partitives. This is not difficult to determine since multiple partitive constructions always contain a contrasted emphatic constituent in FocP or DistP, which follows the \textit{wh}-items. This helps us locate the \textit{wh}-items since there are not many constituents that can precede contrasted emphatic elements.

2.1.2.1. The expression of contrast: exclusive focus or contrasted quantifiers

All clauses of multiple partitives have to contain a contrasted constituent that is either an exclusive focus constituent in FocP or a contrasted quantifier in DistP. Sentences without a contrasted emphatic operator are ungrammatical. The grammatical patterns with different types of focus and quantifiers are illustrated in the following.

Exclusive focus can show up as the following in Hungarian:

\begin{itemize}
  \item a.) constituent focus or verb focus (AP, NP, PP, V₀-focus)
  \item b.) VP/predicate focus
  \item c.) negation of a VP/predicate
  \item d.) thematic verb focus (to be explained below)
\end{itemize}

I illustrate each type separately below. Focused items are indicated by capitals.

\textbf{a.} Constituent focus figures in example (21a). This structure is exactly like (2) above with one difference: in (21a) the verb has a preverb as well, whose stranded position indicates that focusing of \textit{a boltba/a piacra} ‘to the shop/to the market’ has taken place in both clauses. (21b) shows verb focus.

\begin{enumerate}
  \item a. Ki \textbf{A BOLTBA} ment \textbf{el}, ki \textbf{A PIACRA}.
      who-NOM the shop-ILL went-3SG PV who-NOM the market-SUB
      ‘Some went to the shop, the others went to the market.’
  
  \item b. Ki \textbf{MENT}, ki \textbf{SZALADT}.
      who-NOM walked-3SG who-NOM ran-3SG
      ‘Some were walking, the others running.’
\end{enumerate}

\textbf{b.} VP-focus is a focusing operation in which exclusive focus is provided for a whole verb phrase. This is manifested in various ways in Hungarian. It can involve any of the following options (Kenesei 1998b):

\begin{enumerate}
  \item (i) an argument of the verb fronted to the FocP position (22)
  \item (ii) a referential adjunct fronted to FocP, if the verb has a postverbal argument carrying focus-stress as well (23)
  \item (iii) verb focus with in situ stressed arguments and adjuncts (24) (dispreferred to (i) or (ii))
\end{enumerate}

All these configurations are attested in multiple partitives:
(i) focusing an argument

(22) Ki A HAMLETET olvasta, ki A FŰVET nyírta.
who-NOM the Hamlet-ACC read-3SG who-NOM the grass-ACC mowed-3SG
'Some read Hamlet, the others mowed the grass.'

(ii) focusing a referential adjunct, leaving an argument behind with focal stress

(23) Ki A KERTBEN nyírta a 'fűvet,
who-NOM the garden-ILL mowed-3SG the grass-ACC
ki AZ ISKOLÁBAN írta a leckét.
who-NOM the school-ILL wrote-3SG the homework-ACC
'Some mowed the grass in the garden, the others wrote the homework at school.'

(iii) verb focus with in situ constituents with focal stress

(24) ?Ki nyírta a 'fűvet a kertben,
who-NOM mowed-3SG the grass-ACC the garden-INE
ki olvasta a 'Hamletet.
who-NOM read-3SG the Hamlet-ACC
'Some mowed the grass in the garden, the others read Hamlet.'

c. VP/predicate negation also creates contrast by opposing a positive and a negative predicate (see Puskás (1996) for arguments that sentential negation in Hungarian also involves the projection of FocP). Note also that the order of the positive/negative predicates does make a difference, the negated predicate cannot be the first one if the positive one is expressed by igen 'yes':

who-NOM read-3SG the Hamlet-ACC who-NOM not
'Some were reading Hamlet, the others were not.'

b. ??*Ki nem olvasta a Hamletet, ki igen.
who-NOM not read-3SG the Hamlet-ACC who-NOM yes
'Some did not read Hamlet, the others did.'

d. What I call “thematic verb focus” is a special type of verb focus. An example is found in (26).

(26) Ki VERT, kit VERTEK.
who-NOM hit-PAST-3SG.INDEF who-ACC hit-PAST-3PL.INDEF
'Some hit people, the others were themselves hit.'

Structurally, (26) contains verb focus in both clauses. It is well-known that verb focus can have different effects. It can affect aspectual properties for example (Rappoport 1999), or it can mean focus on some adverbial phrase inherent to verb meaning (Erteschik-Shir & Rappoport 2000). In (26) we see verb focus with a different effect: here the verb is focused with respect to the arguments it has. Verbs
with two arguments like \textit{ver} `hit' can be focused such that \textit{ver}$_1$ comes to contrast with \textit{ver}$_2$, where \textit{ver}$_1$ is a verb with its theme argument suppressed (let us call it \textit{ver$_{agent}$}), and \textit{ver}$_2$ is a verb with its agent argument suppressed (let us call it \textit{ver$_{theme}$}). This type of verb focus thus in effect contrasts two pseudo-verbs (verbs that are not part of the lexicon). The production of such pseudo-verbs is a long observed effect of verb focus (for other examples of pseudo-verbs, see Szabolcsi (1992b), p. 134.).

\footnote{I do not aim to make it precise what “suppression” of an argument exactly means here. In the case of agent suppression (in the second clause of (26)), it is clear: the agent appears as a quasi-existential argument, indicated by 3PL agreement (for quasi-existentials in Hungarian, see Tóth (2000)). The suppression of the theme argument in the first clause of (26) is more intriguing, for the following reasons.

The first clause of (26) does not have an overt theme argument. It does not have an object \textit{pro} theme argument either, because the verb does not appear with definite conjugation. What kind of implicit argument does \textit{ver} have then?

One option would be to say that the first clause of (26) contains a generic object \textit{pro} (Authier 1989).

If this one is present in sentences like (i) in Hungarian, it triggers indefinite agreement on the verb, as in (i):} 

(i) A zene boldoggá tesz.

\textit{The music-NOM happy make-3SG.INDEF}

`Music makes one happy.'

However, whatever represents the theme in (i), it is unlikely that the same item represents the theme in (26). The reason is that while (i) is fine in any generic sentence without focus, (26) is not a generic statement (a statement about any individual), and it is tied to the presence of verb focus: without verb focus, the sentence is not licensed (see 27 below as well).

Another suggestion would be that the first clause of (26) contains an antipassive — the verb is detransitivized. However, antipasses are not attested in Hungarian elsewhere.

One other way of handling the missing theme in the first clause of (26) would be to claim that the verb in this clause is an intransitive one, similar to English \textit{hit}, which can be used intransitively when describing a habitual, individual-level property of the agent (iia) or the agent's role (iib) in some settings (for implicit objects in English, see Cote 1997):

(ii)

a. Beware, János hits easily!

b. János hits (=he is a hitter).

Hungarian has verbs like English \textit{hit}, which are transitive but can be used with meanings similar to (iia) and (iib). \textit{Új `beat, hit' for example is one of these. Interestingly, however, the class of verbs usable in (ii) does not correspond to the class of verbs used in (26) completely. \textit{Ver}, our example for thematic verb focus, cannot be used in (ii):}

(iii)

a. *Vigyázz, János ver!

\textit{beware János-NOM hit-3SG.INDEF}

b. ??János ver

\textit{beware János-NOM hit-3SG.INDEF (=he is a hitter)}

`János does the hitting.'

This suggests that in (26) it is not the expression of a habit/certain role of the agent that licenses the use of intransitive \textit{ver}.

As a result of the above considerations we can conclude that in (26) we are dealing with an intransitive \textit{ver}, which surfaces as a result of verb focus. The theme argument is presumably missing from the clause completely, and it is not represented by any kind of \textit{pro} either.

Finally note also that thematic verb focus becomes impossible if we use verbs with perfectivizer preverbs, i.e. if the verb has an accomplishment/achievement aktionsart.

(iv) *Ki megvert,

\textit{who-NOM PV-hit-3SG.INDEF}

\textit{kit megverték.}

\textit{who-ACC PV-hit-3PL.INDEF}

This must be due to the fact that thematic verb focus always expresses \textit{states} about the agent/theme, and therefore it is not available with telic predicates.
That thematic focus is a special type of verb focus can be seen from the fact that this kind of focus is only grammatical if both verbs \((\text{ver}_{\text{agent}} \text{ and } \text{ver}_{\text{theme}})\) are spelled out explicitly. To see this, let us illustrate thematic verb focus with an example where instead of multiple partitive \(wh\)-phrases we find run-of-the-mill NP arguments:

(27) a. Péter VERT, *(\(s\) nem VERTÉK).
    Péter-NOM hit-3SG.INDEF (and not hit-3PL.DEF)
    'Péter was the AGENT of hitting, not the THEME.'

b. Péter VERT, *(\(s\) Jánost VERTÉK).
    Péter-NOM hit-3SG.INDEF (and János-ACC hit-3PL.DEF)
    'Péter was the AGENT of hitting, while János was the THEME.'

As is indicated, without the second clause the first one is ungrammatical. This is due to the fact that thematic verb focus is a special type of verb focus, not the default case of verb focus. Therefore, thematic verb focus has to spell out both clauses in (27), otherwise the first clause alone would be interpreted as a case of run-of-the-mill verb focus, where \(\text{ver} \text{ 'hit'}\) is contrasted with other verbs, for example with \(\text{pofoz 'slap'}\), \(\text{rugdos 'kick'}\) or \(\text{simogat 'stroke'}\) and the like.

Emphatic operators other than focus are also possible in multiple partitive structures. Quantifiers appearing in Spec,DistP positions are possible with emphasis and contrastive meaning:

(28) Ki MINDENKIT meghívott, ki csak HÁROM embert.
    who-NOM everyone-ACC invited-3SG who-NOM only three person-ACC
    'Some invited everyone, the others invited only three people.'

This section so far has shown the grammatical patterns with multiple partitives. In all the grammatical clauses we find emphatic operators following the \(wh\)-items. \(^3\) When no emphatic operator is present, multiple partitives are ungrammatical. If (29) is intonated with neutral intonation throughout, the result is ungrammaticality:

(29) *Ki elment a boltba, ki elment a piacrá.
    who-NOM PV-went the shop-ILL who-NOM PV-went the market-SUB
    'Some people went to the shop, the others went to the market.'

On the basis of the examples in this section it can be concluded that the multiple partitive construction in Hungarian necessarily involves contrastive emphatic operators to be present in the clauses. These operators occupy either Spec,FocP or Spec,DistP in the Hungarian clause structure (see Chapter 1). This allows us to draw the following schematic structure for Hungarian multiple partitives, which will be further specified in the next section:

\(^3\)In the remainder of this chapter I do not always mark emphatic operators in the examples of multiple partitives with capitals, unless it is relevant for the discussion.
2.1.2.2. The syntactic structure of Hungarian multiple partitives: contrastive topicalization

As examples (21-28) in the previous section have shown, the *wh*-items in multiple partitives linearly precede exclusive focus or quantifier constituents (in FocP and DistP positions respectively). Since only topics can precede these constituents in Hungarian, we must recognize *wh*-items in multiple partitives as topics. The question then is what kind of topics could they be?

Hungarian has three different topical elements: regular Topics, Contrastive Topics and left dislocates. For a full characterization of these topic types, see Chapter 1.

Out of the three possibilities, *wh*-items in multiple partitives cannot be left dislocates on phonological grounds. *Wh*-items in multiple partitives do not behave like left dislocates: they do not have the intonation that is typical of left dislocated elements. The choice then is reduced to two kinds of topics: ordinary (non-contrastive) Topics or Contrastive Topics. The main difference between the two, as their names also suggest, can be found in their interpretation — Contrastive Topics are always interpreted contrastively with respect to another topic element, which, if overt, shows up in a parallel clause. Ordinary Topics on the other hand are not interpreted contrastively. This semantic difference is accompanied by some syntactic differences as well. While ordinary topics can stand in a neutral sentence, Contrastive Topics must always be followed by an emphatic operator (focus or quantifier). Contrastive Topicalization in Hungarian is only licensed if the clause contains an emphatic operator (focus or quantifier), too. For illustration, consider the following examples with Contrastive Topics:

   Mari-NOM saw-3SG Pali-ACC Bea-NOM (COORD) Péter-ACC  
   ‘Mari saw Pali, whereas Bea saw Péter.’

b. Mari PALIT látta, Bea (pedig) PÉTERT.  
   Mari-NOM Pali-ACC saw-3SG Bea-NOM (COORD) Péter-ACC  
   ‘Mari, she saw PALLI, whereas Bea, she saw PÉTER.’

c. Mari MINDEN KÖNYVET megkapott Pali-tól,  
   Mari-NOM every book-ACC got-3SG Pali-ABL  
   Bea (pedig) csak EGYET.  
   Bea-NOM (COORD) only one-ACC  
   ‘Mari, she got ALL THE BOOKS from Pali, whereas Bea, she got only ONE.’

These sentences contain contrasted topics, *Mari* and *Bea* in the respective clauses: of the two individuals two different predicates are true. If each clause is uttered with neutral intonation, and no emphatic preverbal constituent is present, contrastive topicalization fails, as in (31a). This is just like in the case of multiple partitives:
compare (29) above, where the same restriction is operative.

Besides the requirement for an emphatic operator in each clause, multiple partitives and contrastive topicalization structures are similar also in that both can contain overt contrastive coordinators. In the case of contrastive topicalization, there are two types of possible coordinators one can use. The initial de/ám/mig ‘but’, which appear between the two clauses linearly, or the internal pedig ‘though’, meg ‘and’, viszont ‘on the other hand’, azonban ‘though’, which always appear in the last clause after the contrastive topic element. In the case of multiple partitives, initial coordinators are not fine, but internal ones are possible, although with varying grammaticality: while pedig is impeccable, meg is slightly strained, viszont is very marginal, and azonban ungrammatical. (32) shows the relevant data with contrastive topicalization and (33) with multiple partitives:

(32) a. János A BOLTBA ment, de/ám/mig Péter A PIACRA.
    János-NOM the shop-ILL went-3SG COORD Péter-NOM the market-SUB
    ‘János, he went to the shop, whereas Péter, he went to the market.’

b. János A BOLTBA ment,  
    János-NOM the shop-ILL went-3SG
    Péter pedig/meg/viszont/azonban A PIACRA.
    Péter-NOM COORD the market-SUB
    ‘János, he went to the shop, whereas Péter, he went to the market.’

(33) a. Ki A BOLTBA ment, *de/*ám/*mig ki A PIACRA.
    who-NOM the shop-ILL went-3SG COORD who-NOM the market-SUB
    ‘Some went to the shop, the others to the market.’

b. Ki A BOLTBA ment,  
    who-NOM the shop-ILL went-3SG,
    ki (?)meg/pedig/??viszont/*azonban A PIACRA.
    who-NOM COORD the market-SUB
    ‘Some went to the shop, the others to the market.’

The occurrence of meg/pedig following the second wh-item in (33b) is indicative of a contrastive topicalization structure. There is only one construction that features meg/pedig as non-initial coordinators: that of contrastive topicalization (see Chapter 1). This indicates that contrastive topicalization is involved in multiple partitive constructions. Therefore, multiple partitives can be assigned the same structure as sentences with Contrastive Topicalization. For the latter I proposed the following structural characterization in Chapter 1:

(34) [CTopP János [CTopP [FocP A BOLTBA ment]]], (de/ám/mig)
    [CTopP Péter [CTopP meg/pedig/viszont/azonban [FocP A PIACRA]]]

The contrasted topic phrases sit in the specifier of a special functional projection, that of Contrastive Topic Phrase (CTopP). This projection is erected whenever topical elements are interpreted contrastively. Coordinators can indicate the contrast syntactically as well. The ones that follow the topic element (listed in 32b) I argued
to be the spellout of the CTop\(^0\) head.

Taking over this structure for multiple partitives, we arrive at the following characterization:

\[
(35) \quad [\text{CTopP} \text{wh} [\text{CTop'} [\text{DiapP/FocP} \ldots ]], (*\text{de}/*\text{ám}/*\text{mig}) \\
[\text{CTopP} \text{wh} [\text{CTop'} (?)\text{meg/pedig/??viszont/*azonban} [\text{DiapP/FocP} \ldots ]]]
\]

That is, multiple partitives involve a contrastive topicalization structure. If the coordinator element is spelled out, it appears as a contrastive coordinator residing in the Contrastive Topic head, and it is spelled out either as *pedig or as *meg. The wh-elements fill the specifier position of CTopP. The only difference between contrastive topicalization with ordinary DP topics and multiple partitives with wh-items is that the available overt coordinator elements are more restricted in case of the latter: in multiple partitives only coordinators in the CTop\(^0\) position can be spelled out, *pedig/meig being preferred to *viszont/azonban.

2.2. Possible and impossible \textit{wh}-items

Example (9) in section 1.1 has already shown that various \textit{wh}-items are possible in multiple partitive constructions in Hungarian. In this section I spell out the distribution of different \textit{wh}-items in this construction in more detail.

2.2.1. Arguments and adjuncts

Possible \textit{wh}-items in Hungarian multiple partitives are: \textit{ki} ‘who’, \textit{mi} ‘what’, \textit{hol} ‘where’, \textit{mikor} ‘when’, referring to human and non-human individuals, places and times. In (9), repeated here, some illustrations were given for these various \textit{wh}-items:

\begin{enumerate}
\item[(9) a.] Az elintéznivalók közül minek Péter járt utána, minek Mari.  
\quad the errands from what-DAT Péter-NOM went PV what-DAT Mari-NOM  
\quad ‘Out of the errands Péter ran some and Mari ran the rest.’
\item[(9) b.] Hol kapható Eszterházy új könyve, hol nem.  
\quad where available Eszterházy-NOM new book-POSS.3SG where not  
\quad ‘At some places Eszterházy’s new book is available, at others it is not.’
\item[(9) c.] Mikor Mari, mikor Péter megy el hamarabb.  
\quad when Mari-NOM when Péter-NOM goes-3SG PV earlier  
\quad ‘Sometimes Mari, the other times Péter leaves earlier.’
\end{enumerate}

The situation is similar in Finnish and Russian as well, for examples involving ‘what’, ‘where’, ‘when’ \textit{wh}-items, see examples (11) and (12) above.

To the Hungarian examples in (9) it has to be added that \textit{hol} ‘where’ very frequently occurs meaning ‘when’, i.e. with a shifted meaning, referring to time:
(36) Hol Pétertől kölcsönzők könyveket, hol Mariától.
   where Péter-ABL borrow-1SG books-ACC where Mari-ABL
   ‘Sometime I borrow books from Peter, the other times from Mari.’

Examples like (36) are the only examples where the wh-element hol appears with a
temporal meaning in present day Hungarian. This use of hol, however, is known
from earlier stages of Hungarian, where hol was used to refer to time as well. The
following is an example from 19th century literary Hungarian, with a relative
pronoun hol, meaning ‘when’:

(37) ily északán, hol meghúzná magát a kölykes medve is
   such night-SUP where hide-COND himself-ACC the mother bear-NOMalso
   ‘during such a night, when even the mother bear would hide away’

Mihály Vörösmarty: Lear király

The phenomenon of using where with a temporal meaning is known from other
languages as well.4 (38) is an English example, where for an abstract notion of
contingency, where can be used instead of when (Quirk et al. 1985):

(38) Where in doubt, see me.

After seeing what wh-items multiple partitives allow for, we have to list the
impossible wh-items as well. There are two types systematically excluded. ‘How’,
‘why’ and ‘what (kind)’ adjuncts on the one hand and complex wh-phrases on the
other.

Hogy(an) ‘how’, miért ‘why’ and milyen ‘what (kind)’ adjuncts give
ungrammatical results, even when these items are used to refer to an established set
of ways/reasons/kinds:

(39) a. (Sokféleleképpen érzem magam.)
   many ways feel-1SG myself-ACC
   *Hogyan reggel érzem magam, hogyan este.
   how morning feel-1SG myself-ACC how evening
   ‘(I feel different). In some way I feel in the morning, in others in the
   evening.’

b. (Sokféle okból mennek külföldre az emberek.)
   many reasons-ELA go-3PL abroad-SUB the people-NOM
   *Miért a nők, miért a férfiak.
   why the women-NOM why the men-NOM
   ‘People go abroad for many reasons. Women for some reasons, men for
   others.’

---

4 Not surprisingly, since temporal relations are often referred to with spatial ones in natural languages.
c. (Különböző könyveket olvastunk.)

different books-ACC read-PAST-1PL
*Milyet én olvastam, milyet te.
what-kind-ACC I-NOM read-PAST-1SG what-kind-ACC you-NOM
'We read different books. Some types of books I read, the other types you did.'

The situation is the same in Finnish and Russian, languages with Hungarian-type multiple partitives. I illustrate these languages with examples with 'why':

(40) (On monta syytää muuttaa ulkomaaille.)
are many reasons move abroad
*Miksi muuttaa naiset, miksi miehet.
why move women why men
'There are many reasons to go abroad. Women move for some reasons, men for the others.'

(41) *Vse pošli domoj, počemu odni ušli a počemu drugije.
all-NOM went-PL home why ones-NOM left-PL but why others-NOM
'They all went home, ones for some reason, the others for others.'

While 'how' and 'why' adjuncts are systematically excluded from the productive multiple partitive constructions in all languages, these elements show up in lexicalized expressions that derive from multiple partitives in Hungarian. *Hogy 'how' and *miért 'why' (together with *hol 'where') figure in the following lexicalized expressions:

(42) a. Hogy, hogy nem, Péter eltörte a lábát.
how how not Péter-NOM broke-3SG the leg-POSS.3SG-ACC
'Whatever way it happened, Péter broke his leg.'

b. Miért, miért nem, Mari nem jött az órára.
why why not Mari-NOM not came-3SG the class-SUB
'For whatever reason, Mari did not come to the class.'

c. Hol volt, hol nem volt, volt egyszer egy óriás.
where where not was was once a giant-NOM
'Once upon a time there was a giant.'

As the translations indicate, *hogy, hogy nem, miért, miért nem, and hol volt, hol nem volt (the last one exclusively used as the first sentence of tales) are concessive phrases: they indicate that the way something happened, the reason why something happened or the place where something happened is unknown, and moreover, that it is surprising.5 As far as their structure is concerned, while in present-day Hungarian

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5The concessive meaning of these phrases explains why they always have to be initial or have to come as a parenthetical after topics:
they are word-size units, they certainly derive from multiple partitives like the following examples with VP-ellipsis, as the transparent, unellipted *hol volt, hol nem volt* indicates as well:

(42') a. Hogy történt, hogy nem történt, ...
   how happened-3SG how not happened-3SG
b. Miért történt, miért nem történt, ...
   why happened-3SG why not happened-3SG
c. Hol volt, hol nem volt, ...
   where was where not was

This proves that *hogy, hogy nem, miért, miért nem, and hol volt, hol nem volt* developed out of a multiple partitive structure, and during the lexicalization process they acquired a special, concessive meaning. It is crucial though that these examples are lexicalized items. No such example can be derived by productive use of multiple partitives:

(43) *Ki, ki nem, betörte az ablakot.
    who-NOM who-NOM not broke-3SG the window-ACC
    ‘Whoever it was, someone broke the window.’

I assume, therefore, that concessive multiple partitives, which only exist lexicalized, are distinct in properties from standard productively used multiple partitives, visible from the choice of *wh*-item in them, and also from their intonation.6 Their structure, however, clearly reveals their origin as multiple partitives, together with one important property: exhaustivity. Concessive phrases like ‘whatever way’, ‘whichever reason’ are also exhaustive in that they refer to all possible ways/reasons available for a given proposition. They do not only indicate one (specific or unspecific) way or reason, but they refer to all possible ways/reasons that there are. This is indicated by the use of -*ever* in English, which is well-known for its universal meaning (Jacobson 1995, Bittner 1999). Now, exhaustivity and maximal/universal readings are clearly the same phenomena here. *Hogy, hogy nem*-type expressions while providing two opposite options (a positive and a negative one) in effect provide the full-range of possibilities through a concessive meaning. In this sense they are therefore exhaustive, just like any productive multiple partitive pattern. This again reinforces our observation that exhaustivity is an essential part of multiple partitives in Hungarian.

(i) a. Péter, hogy, hogy nem, eltörte a lábát.
   Péter-NOM how how not broke-3SG the leg-POSS.3SG-ACC
b. *Péter eltörte a lábát, hogy, hogy nem.
   Péter-NOM broke-3SG the leg-POSS.3SG how how not

6Lexicalized concessive multiple partitives involve stress on the *wh*-items, while standard multiple partitives do not (see section 2.1.2.2).
2.2.2. Simplex versus complex wh-items

The other requirement that determines the distribution of wh-items in multiple partitives is that the wh-item in initial position cannot be a complex phrase consisting of more than one word, the wh-word itself.

A telling example of this is the behaviour of ‘which’, which can occur in multiple partitives with different grammaticality depending on whether it has its NP complement spelled out or not. In Hungarian, melyik ‘which’ without an overt NP can only appear in elliptical sentences (44a), but is completely ungrammatical with an overt NP complement:

(44) a. Melyiket így, melyiket úgy.
     which-ACC this way which-ACC that way
     ‘Some of them this way, the others that way.’

b. *Melyik könyvet Péter olvasta el, melyiket Mari.
     which book-ACC Péter-NOM read-3SG PV which-ACC Mari-NOM
     ‘Péter read some books, Mari the others.’

The pattern in Finnish is similar: ‘which’ phrases without an NP are completely fine, while with an overt NP they are bad:7

(45) Olen oppinut tuntemaan monta miestä,
     have-1SG learned know-INF many men-PART
     mitkä (*miehet) pitkiä, mitkä lyhyitä.
     which (man)-NOM tall which-NOM short
     ‘I have learned to know many men, some of them tall, the others short.’

The bareness requirement is also reflected by the noteworthy property that the wh-item cannot pied-pipe any material with it. This would in principle be possible if the wh-item originates as a possessor in a possessive DP, as in the following sentences. Pied-piping is highly unnatural, while stranding is fine:

(46) a. ??[Kinek az anyja] süteményt sütött, kinek tortát.
     who-DAT the mother-POSS.3SG cookies-ACC baked-3SG who-DAT cake-ACC
     ‘Some people’s mother made cookies, the other’s cakes.’

b. Kinek; süteményt sütött [t az anyja], kinek tortát.
     who-DAT cookies-ACC baked-3SG the mother-POSS.3SG who-DAT cake-ACC
     ‘Some people’s mother made cookies, the other’s cakes.’

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7In Russian, examples with ‘which’ are systematically bad, regardless of the overtness of the NP:

(i) *Iz vsex knig, kakije (knigi) ja proela a kakije (knigi) ty.
     from all books which (books) I read but which (books) you
     ‘From all books, I read some, and you the others.’

I put this down to the fact that Russian lacks a wh-item ‘which’ that is morphologically different from ‘what (kind)’: kakij can be used for both. Therefore, (i) is ungrammatical similar to (44b) in Hungarian.
For comparison, note that this property only characterizes \textit{wh}-items occurring in the multiple partitive construction. \textit{Wh}-items in questions, relatives, exclamatives can optionally pied-pipe:

(47) a. [Kinek az anyja] sütött sütémenyt? (question) 
    who-DAT the mother-POSS.3SG baked-3SG cake-ACC 
    ‘Whose mother baked cakes?’

b. Péter, [akinek az anyja] sütésnyit sütött... (relative) 
    Péter-ACC a-who-DAT the mother-POSS.3SG cake-ACC baked-3SG 
    ‘Péter, whose mother baked cakes...’

c. (Hogy) [kinek az anyja] sütött sütéményt!(exclamative) 
    who-DAT the mother-POSS.3SG baked-3SG cake-ACC 
    ‘The mother of what a person baked cakes!’

I assume that both (44/45) and (46) indicate the same thing: the bareness of the fronted \textit{wh}-item is a necessary property of multiple partitives.

3. The analysis of multiple partitives

In this section I give a syntactic analysis of multiple partitive structures, both the Hungarian-type and the French-type. As we have seen in section 1 above, the main semantic difference between the two lies in exhaustivity. While Hungarian-type multiple partitives require an exhaustive listing of subsets of a discourse set, French-type languages do not have this requirement. Since the two sets of languages differ so clearly in this respect, it cannot be the case that exhaustivity in one case is a pragmatic phenomenon — if it were, we would expect it to be present in all languages with multiple partitives, not only in a subset of these, given that pragmatic principles are universal. This means that, since exhaustivity is subject to variation, it has to be accounted for by syntactic means.

That the presence or absence of exhaustivity is a syntactic property is also reflected in that this difference is tied to other syntactic differences between the two types as we have seen in section 1 above: an ‘and’ coordinator between the clauses is only possible in the non-exhaustive French pattern, while a large variety of \textit{wh}-items is only possible in the exhaustive Hungarian pattern. The properties of the two patterns are listed again here, repeated from above:

(10) a. Properties of multiple partitives in Hungarian-type languages
    (i) \textit{wh}-items occur in a multiplicity of juxtaposed clauses with parallel structure
    (ii) the clauses necessarily contain contrasted predicates
    (iii) the sets denoted by the \textit{wh}-items must exhaust a contextually given discourse set
The two patterns are distinct both in their semantics and syntax, which any adequate analysis will have to reflect.

I will start out analyzing the Hungarian-type construction first (section 3.1) basing myself on Hungarian. The proposed analysis will have to carry over to Finnish and Russian as well. In section 3.2 I propose a treatment for French-type languages, which will be different from that of Hungarian.

3.1. Hungarian type multiple partitives: the case of Hungarian

The semantic property that sets Hungarian-type multiple partitives apart from French-type ones is exhaustivity with respect to the subsets of individuals characterized by the clauses. The most important syntactic property that accompanies exhaustivity is that no ‘and’ coordinator can appear between the clauses. In what follows I present an analysis of Hungarian multiple partitives that is devised to explain primarily these two particular properties, starting with exhaustivity. Although exhaustivity is a semantic notion, it will be shown to have a syntactic source: there is an exhaustive syntactic construction that underlies Hungarian multiple partitives, and the presence of this construction brings in exhaustivity (together with multiplicity and contrast as well) for multiple partitives. This underlying construction is that of clausal disjunction. I will show that in Hungarian multiple partitives instantiate a clausal disjunction structure.

3.1.1. Exhaustivity tackled: universal quantification and disjunction

3.1.1.1. Contrastive topicalization as a source of exhaustivity?

When thinking about what can explain exhaustivity of multiple partitives, it has to be made clear right at the beginning that exhaustivity is not inherently present in the structure that multiple partitives occur in, namely in contrastive topicalization. We have seen in section 2.1.2.2 above that Hungarian multiple partitives have the structure of contrastive topicalization, in which we find the wh-items as Contrastive Topic elements in parallel clauses. The syntactic structure I assigned to these constructions is repeated here as (48). CTopP stands for a special topic position that hosts topic elements with a contrastive interpretation:
One might think that the exhaustivity that characterizes multiple partitives is inherent to contrastive topicalization structures. If it was so, since multiple partitives involve contrastive topicalization, multiple partitives will inherit exhaustivity from the structure. This, however, can be shown not to be the case, since contrastive topicalization does not have the requirement of exhaustivity. Consider contrastive topicalization with ordinary indefinites, as in the following example:

(49) (A gyerekek megérkeztek.)
    (the children-NOM arrived-3PL)
    Néhány játszani akart, néhány pedig enni.
    some-NOM play-INF wanted-3SG some-NOM COORD eat-INF
    ‘The children arrived. Some wanted to play, some to eat.’

(49) is compatible with a situation in which there were children arriving who did not want to either play or eat. What (49) does is sampling out subgroups of children, but these subgroups do not exhaust the set of children.

This shows that contrastive topicalization in itself does not need to exhaust a situationally given set. To compare, multiple partitives in the same context would force exhaustivity:

(50) A gyerekek megérkeztek.
    (the children-NOM arrived-3PL)
    Ki játszani akart, ki pedig enni.
    who-NOM play-INF wanted-3SG who-NOM COORD eat-INF
    ‘The children arrived. Some wanted to play, the others to eat.’

(50) is not compatible with a state of affairs in which there was any child who did not want to play or eat. It can be stated with certainty therefore that exhaustivity is not an inherent property of contrastive topicalization structures, so multiple partitives do not inherit this property from the syntactic configuration of contrastive topicalization per se either.

3.1.1.2. Disjunction as a source of exhaustivity
The type of exhaustivity we see in multiple partitives is a rare type of exhaustivity. It requires a faithful characterization of all subsets of a discourse set, which then results in listing as many clauses as there are subsets. This kind of exhaustivity is very special: it extends clausal boundaries — it bridges over more than one clause at a time. There is one syntactic construction I am aware of that exhibits this kind of exhaustivity: the type of disjunction that exclusive either — or exemplifies in English. In Hungarian, this type of disjunction is introduced by the n-ary exclusive initial vagy ‘or’. Exclusive disjunction, expressed with initial vagy always involves clausal disjunction, as I have argued in Chapter 1. This means that whenever we find
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structures with initial vagy disjunctors, we are dealing with clause-size disjuncts with ellipsis in one or more clauses. This type of exclusive vagy..., vagy... disjunction is always exhaustive: the list of disjuncts must always exhaust all available options there are. Consider the following example:  

(51) János vagy a boltba ment, vagy a piacra.  
János-NOM either the shop-ILL went-3SG or the market-SUB  
‘János went either to the shop or to the market.’

This sentence cannot truthfully describe a state of affairs in which János went to a place other than the shop or the market, say, he went to the library. This type of disjunction is exhaustive exactly as multiple partitives are: it is required that all possible disjuncts are spelled out overtly. In (51), it must mean that all possible places where János could have gone must be spelled out explicitly.

Exclusive or disjunction can operate on clause-sized material as well in the syntax, in which case it is exhaustive in the same way. It has to list all possible propositions there are among the contextually constrained situations:

(52) Vagy [IPJános megy a boltba], vagy [IPPéter megy a piacra].  
or János-NOM go-3SG the shop-ILL or Pétér-NOM go-3SG the market-SUB  
‘Either János goes to the shop, or Péter to the market.’

One cannot use (52) to describe a situation in which it is also possible that shopping is done by another party, for example, by Mari ordering stuff on the internet. That is, in the case of (52), just as in (51) above, all possible situations have to be listed. This is similar to what we find with multiple partitives: in multiple partitives all subsets of a previously introduced set of individuals have to be mentioned. In disjunction, all disjuncts have to be mentioned for the sentence to be used truthfully.

Beside the common property of exhaustivity, disjunction and Hungarian-type multiple partitives also share the property of being exclusive. Exclusive disjunction excludes the possibility that two or more disjuncts can be true at the same time. Example (51) is not true if János went both to the shop and to the market, and (52) is not true in a situation in which both János goes to the shop and Péter goes to the market. Multiple partitives are exclusive in the same way in Hungarian-type

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8It must be noted here that English either – or is (at least prescriptively) is a binary operator, while Hungarian vagy – vagy is an n-ary one. Since the examples I am discussing here all involve two clauses only, this is not a problem for me. It must be kept in mind, however, that Hungarian vagy can link any number of clauses, just as the multiple partitive construction can have any number of clauses.

9It is an interesting question what the exhaustive nature of exclusive disjunction follows from in the logical sense. Non-exclusive or as in the following sentence is not exhaustive:

(i) Mary or Peter come to the party.
This sentence states that from among the two possibilities, Mary and Peter, at least one of them must be coming to the party. It does not exclude that both come to the party, and also, it does not exclude that there is noone else who comes to the party. Exclusive disjunction, however, does both: it is exclusive and exhaustive as well (Jennings 1994). If the two go together, it stands to reason that exhaustivity is a logical consequence of exclusiveness somehow.
languages (but not in French-type ones). The Hungarian (1), repeated here as (53) cannot be true if there are people who went both to the shop and to the market:

(53) Ki a boltba ment, ki a piacra.
who-NOM the shop-ILL went-3SG who-NOM the market-SUB

'Some went to the shop, the others to the market.'

Since disjunction exhibits the kind of exhaustivity and exclusiveness that Hungarian-type multiple partitives also do, it is therefore suggestive to try to relate multiple partitives of the Hungarian type to clausal disjunction structures. As it was shown in Chapter 1, section 4, clausal disjunction in Hungarian also takes part in contrastive topicalization structures, just like multiple partitives do (section 2.1.2.2 above). A close similarity between the two, explored in more detail below, is therefore there in structural terms as well. As I will show in section 3.1.2, it can be argued that multiple partitives actually instantiate the same disjunctive structure that vagy...,vagy... clauses do in Hungarian. But before turning to a structural characterization, in the next section I review other properties of Hungarian vagy...,vagy... disjunctions that curiously enough are also present with multiple partitive structures. These properties further strengthen the view that Hungarian-type multiple partitives and disjunction are related in some way.

3.1.1.3. Other parallels with disjunction: multiplicity, contrast and the order of positive–negative predicates

Beside being exclusive and exhaustive, clausal disjunction shares other properties with Hungarian multiple partitives as well. One requirement that the two of them share, the requirement for a contrasted constituent in the clause, is also shared by contrastive topicalization structures. I will review this property first. Besides there are two other parallel properties that show up both with disjunction and multiple partitives: multiplicity and the fact that the order of positive-negative predicates is fixed in some constructions. These latter two properties argue for a strong relation between disjunction and multiple partitives.

One property that characterizes clausal disjunctions and multiple partitives alike is that both contain contrasted elements in the predicate (property (ii) in (10)). The contrasted constituent appears in FocP or DistP. This property was shown to be present with run-of-the-mill contrastive topicalization structures as well. The following illustrates some examples of disjunction with contrast expressed. The (a) example shows constituent focus, the (b) example verb focus, (c) negated and positive predicates, (d) contrasted quantifiers and (e) contrasted propositions. Any clause with neutral word order and neutral intonation would result in ungrammaticality. (Note that the (e) examples do not involve displacement of the focused clause, so here only the effect of neutral intonation can be checked).
(54) a. Vagy A BOLTBA ment János, vagy a PIACRA.
    or the shop-ILL went-3SG János-NOM or the market-SUB
    ‘János either went to the shop, or to the market.’

b. Vagy MENT János vagy SZALADT.
    or went-3SG János-NOM or ran-3SG
    ‘János either walked or ran.’

c. Vagy olvasta János a Hamletet, vagy nem.
    or read-3SG János-NOM the Hamlet-ACC or not
    ‘János either read the Hamlet or not.’

d. Vagy MINDENKIT meghívz, vagy csak HÁROM embert.
    or everyone-ACC invite-2SG or only three people-ACC
    ‘You either invite everyone or just three people.’

e. Vagy [IP János ment a boltba], vagy [IP Péter a piacra].
    or János-NOM went-3SG the shop-ILL or Péter-NOM the market-SUB
    ‘Either János went to the shop, or Péter to the market.’

To see the parallelism, the same clauses as above are listed in (55), this time with multiple partitives:

(55) a. Ki A BOLTBA ment, ki a PIACRA.
    who-NOM the shop-ILL went-3SG who-NOM the market-SUB
    ‘Some went to the shop, the others to the market.’

b. Ki MENT, ki SZALADT.
    who-NOM walked-3SG who-NOM ran-3SG
    ‘Some walked, the others ran.’

c. Ki olvasta a Hamletet, ki nem.
    who-NOM read the Hamlet who-NOM not
    ‘Some read Hamlet, the others did not.’

d. Ki MINDENKIT meghívott, ki csak HÁROM embert.
    who-NOM everyone-ACC invited who-NOM only three person-ACC
    ‘Some invited everyone, the others only three people.’

e. Hol [IP János ment a boltba], hol [IP Péter a piacra].
    where János went-3SG the shop-ILL where Péter-NOM the market-SUB
    ‘Sometimes János went to the shop, other times Péter went to the market.’

As for properties that are only shared by disjunction and multiple partitives, but not by contrastive topicalization, there are two to mention.

The multiplicity requirement (property (i) in (10) above) characterizes disjunction as well. Disjunction necessarily has to combine a multiplicity of disjuncts. If only one disjunct is present, the sentence becomes ungrammatical:

(56) *Vagy a boltba ment János.
    or the shop-ILL went-3SG János-NOM
    ‘*János either went to the shop.’
This is exactly like with multiple partitives, as (6a) has shown above. One clause with a wh-item is ungrammatical:

(6) a. *Ki a boltba ment.
    who-NOM the shop-ILL went-3SG
    ‘Some went to the shop.’

To see clearly, just like exhaustivity was shown to characterize multiple partitives and disjunctions but not contrastive topicalization structures in general, the multiplicity property characterizes disjunction and multiple partitives alike but not contrastive topicalization structures. Contrastive Topics can occur in single clauses as well. As I have shown in Chapter 1, Contrastive Topics are topical elements that are interpreted in contrast to another element. When a Contrastive Topic is used, the presence of a contrasted element is implied, but it need not be syntactically present as well. In the following, Péter has to be assigned Contrastive Topic status if it is interpreted as contrastive with respect to another person, present in the discourse, say, János, who has gone to the market:

(57) Péter A BOLTBA ment.
    Péter-NOM the shop-ILL went-3SG
    ‘Péter went to the SHOP.’

Contrastive topicalization therefore does not require a multiplicity of clauses, unlike disjunction or multiple partitives. The fact that disjunction and multiple partitives do require multiplicity alike suggests that there is a link between disjunction and multiple partitives.

The other property shared by vagy...,vagy... disjunction and multiple partitives is a quite curious one. This concerns the order of clauses containing a positive predicate with igen ‘yes’ and a negated predicate. If contrast is expressed between the predicates this way, the positive predicate cannot be final. This is illustrated in the following for both vagy...,vagy... structures and multiple partitives (the latter was also illustrated in (25b) in section 2.1.2.1).

(58) a. Vagy elment János a boltba, vagy nem.
    or PV-went-3SG János-NOM the shop-ILL or not
    ‘János either went to the shop, or not.’

b. *Vagy nem ment el János a boltba, vagy igen.
    or not went-3SG PV János-NOM the shop-ILL or yes
    ‘János either did not go to the shop, or he did.’

(59) a. Ki elment a boltba, ki nem.
    who-NOM PV-went-3SG the shop-ILL who-NOM not
    ‘Some people went to the shop, the others did not.’
3.1.2. Disjunction in multiple partitives

In what follows I propose to treat Hungarian multiple partitives with an underlying structure of clausal disjunction. It needs to be explained what the underlying structure is like, why can no vagy disjunct ever show up in these clauses, and how an analysis along these lines can account for other properties of the construction. I will tackle these problems in turn.

3.1.2.1. How does exhaustivity derive from a disjunction structure?

As I have shown above in section 3.1.1.2, exclusive disjunction is exhaustive in that listing of all possible disjuncts there are is its necessary property. We have also seen that multiple partitives are exhaustive in that listing of all the subsets of a previously mentioned group of individuals is obligatory. The two kinds are illustrated here for convenience’ sake again:

b. *Ki nem ment el a boltba, ki igen.
   who-NOM not went-3SG PV the shop-ILL who-NOM yes
   ‘Some people did not go to the shop, the others did.’

Note that this property does not characterize contrastive topicalization structures, as the following examples show:

(60) a. János elment a boltba, Péter viszont nem.
    János-NOM PV-went-3SG the shop-ILL Péter-NOM COORD not
    ‘János went to the shop, while Péter did not.’

b. János nem ment el a boltba, Péter viszont igen.
    János-NOM not went-3SG PV the shop-ILL Péter-NOM COORD yes
    ‘János did not go to the shop, but Péter did.’

The latter two properties (multiplicity and the order of positive – negative clauses with igen ‘yes’), together with the requirement of exhaustivity that characterize disjunctions and multiple partitives, and only these exclusively, clearly show the similarity between disjunction and multiple partitives. This provides enough incentive to try to draw a structural parallel between the two kinds of structures. As I will show, it is possible to view Hungarian-type multiple partitives as having the structure of disjunction. That is, structurally speaking, multiple partitives instantiate disjunction structures per se. This route of analysis achieves many things. First of all, those properties that multiple partitives share with disjunction are immediately explained: multiplicity of clauses, necessary contrast between predicates, exhaustivity. Since these are properties of disjoined clauses as well, they need not be explained independently for multiple partitive structures if we manage to claim that disjunction is present in the structure of multiple partitives. This approach is also welcome because it reduces Hungarian-type multiple partitives to a well-established construction type.
(60) János vagy [FocP A BOLTBA ment], vagy [FocP A PIACRA].
    János-NOM or the shop-ILL went-3SG or the market-SUB
    ‘Either János goes to the MARKET, or to the SHOP.’
(61) Ki [FocP A BOLTBA ment], ki [FocP A PIACRA].
    who-NOM the shop-ILL went-3SG who-NOM the market-SUB
    ‘Some went to the shop, the others to the market.’

Exhaustivity in (60) means that the predicate ‘go to the shop’ and ‘go to the market’ exhaustively characterize János’ activity. That is, the predicates that can be true of János are exhausted. In (61), exhaustivity means exhaustive listing of the groups of people (with their activity) who are known from previous discourse. In this case, the topicalized constituents are exhausted. The exhaustiveness of the multiple partitive (61), however, can be reduced to a structure like (60), if instead of János we use a universal quantifier as subject.

It has been noted before (for example by Keenan and Faltz 1985) that a set denoted by a universal quantifier always ‘falls’ into subsets when it has scope over disjunction. Consider the following sentence:

(62) Mindenki vagy a boltba ment, vagy a piacra.
    everyone-NOM or the shop-ILL went-3SG or the market-SUB
    ‘Everyone went either to the shop or to the market.’

This sentence is ambiguous in Hungarian between the following two readings:

(62) i. everyone was such that he either went to the shop or went to the market
    ii. it was the case that either everyone went to the shop or everyone went to the market

(62i) represents a reading in which the universal quantifier takes scope over disjunction, while (62ii) results from the universal scoping under disjunction. I assume that the two readings correspond to two different syntactic derivations. (62ii) corresponds to a derivation in which two full clauses are disjoined, there is a universal quantifier starting out in both clauses and the one in the second clause undergoes deletion. This is the uninteresting reading for us, so I put this aside in the rest of the argumentation.

(62i) is the important reading. This reading arises when the universal quantifier scopes over disjunction. It is not the two predicates that are in disjunction (unlike in 60) (i.e. only one of them can be true at a time). Instead, both predicates are true, but of a different set of people. The net effect is that disjunction no longer marks that out of two predicates only one is true, but rather, it splits up the universal operator into subsets. (62i) can be paraphrased by (63):

(62i) everyone was such that he either went to the shop or went to the market
(63) some were such that they went to the shop, and some (necessarily the rest)
   were such that they went to the market
(62i) and (63) are paraphrases of each other: they are true under the exact same truth conditions. The paraphrase in (63) has to be exhaustive (i.e. in the second clause in (63) all people not going to the shop must go to the market). Note that (63) is the paraphrase of a multiple partitive construction, the structure we have set out to analyze.

Basing myself on the paraphrase relation between (62i) and (63), and on the syntactic parallels between disjunction structures and multiple partitives reviewed in the previous section, I claim that the structural representation of (63) contains disjunction as well. To arrive at the proper structure for (63) therefore, one has to specify the structure of (62i) first.

The structure of *vagy...,vagy...* disjunction in Hungarian was given a detailed discussion in Chapter 1. Here I only sum up the most important results of that section.

*Vagy..., vagy...* disjunction always instantiates the combination of two clauses in Hungarian. These clauses appear to be headed by a Contrastive Topic projection, whose head hosts *vagy* (or, in the final clause, the complex *vagy pedig*). The DistP/FocP phrases, which represent the disjoined strings themselves are the complements of the disjunctor *vagy*:

\[(64) \quad \left[ \text{CTopP} \quad \text{vagy} \quad \left[ \text{DistP/FocP} \ldots \right], \quad \text{CTopP} \quad \text{vagy pedig} \quad \left[ \text{DistP/FocP} \ldots \right] \right]\]

In (62i), the structure contains the string in (64), which is preceded by a quantified subject that scopes over both clauses. Without specifically arguing for the place of this constituent in the structure, I assume for ease of exposition that it starts out in both disjuncts, and raises out of these in an ATB manner to adjoin to the CTopP projection:

\[(62i')\quad \text{mindenki} \quad \text{CTopP} \quad \text{CTopP} \quad \text{CTop'} \quad \text{vagy} \quad \left[ \text{FocP}A \text{ BOLTBA ment} \left[ \text{VP} t_i \right] \right] \quad \text{CTop'} \quad \text{vagy} \quad \left[ \text{FocP}A \text{ PIACRA} \left[ \text{VP} t_i \right] \right]\]

Since *mindenki* extracts from both clauses, it leaves traces behind in both. Its scope position, however, is determined by its surface position (as is true of quantifiers in Hungarian). That is, the extracted quantifier scopes over the disjuncts, resulting in the meaning given in (62i).

Note that the universal quantifier *mindenki* ‘everyone’ is a composite element. It contains the universal *minden-* affix, and a wh-item. In Chapter 1 it has been argued that the wh-item in this instance is bound by the universal *minden-* operator, which is responsible for the universal force. The wh-item in itself is a variable that needs a binder to get licensed, to be interpretable both in the semantics and in the syntax.

I assume that wh-items need not only be bound by a universal operator on the word level (by the universal affix *minden*) but that a universal operator can bind
these items across longer distances as well. More precisely, the universal operator can be present in the structure in the position of the extracted mindenki in (62i'), while the wh-parts are spelled out in the individual clauses of the disjunctive structure. The structure that we get corresponds to the following bracketed string:

\[(65) \quad [\text{CTopP} \, \forall \, [\text{CTopP} \, \text{ki} \, [\text{CTopP} \, [\text{FocP} \, \text{A BOLTBA ment} \, t_i]]], \ldots] \quad [\text{CTopP} \, \text{ki} \, [\text{CTopP} \, \text{pedig} \, [\text{FocP} \, \text{A PIACRA ment} \, t_i]]] \]

This structure corresponds to multiple partitives in Hungarian. The universal operator in the sentence initial position has no phonological matrix. It is a covert operator, and it acts as an unselective binder of the wh-items, which function as variables. As far as the position of the wh-items is concerned, placing them in Spec,CTopP is supported by two considerations. On the one hand, section 2.1.2.2 has shown that wh-items in multiple partitives behave like Contrastive Topics. There I have argued for the following structure:\(^{10}\)

\[(35) \quad [\text{CTopP} \, \text{wh} \, [\text{CTopP} \, [\text{DistP/FocP} \, \ldots]], \ldots] \quad [\text{CTopP} \, \text{wh} \, [\text{CTopP} \, (?)	ext{meg/pedig} \, [\text{DistP/FocP} \, \ldots]], \ldots] \]

On the other hand, it was argued above that it is highly beneficial to analyze multiple partitives as structures containing disjunctive coordination. Since the structure of disjunction with initial vagy disjunctors is a contrastive topicalization structure itself (ex. 64), (35) and (64) can be fused to give (65). In (65), wh-items are maximal projections that occupy contrastive topic positions in a structure that hosts disjunction as well. The only difference between (64) (normal disjunction structures) and (65) (multiple partitives) is that the disjunctor vagy cannot be spelled out overtly in the latter case. I assume that it is still there, in a covert form. So in effect we are dealing with the following structure:

\[(66) \quad [\text{CTopP} \, \forall \, [\text{CTopP} \, \text{ki} \, [\text{CTopP} \, \text{vagy} \, [\text{DistP/FocP} \, \ldots \, t_i \ldots]], \ldots]], \ldots] \quad [\text{CTopP} \, \text{ki} \, [\text{CTopP} \, \text{vagy} \, \text{pedig} \, [\text{DistP/FocP} \, \ldots \, t_i \ldots]], \ldots]] \]

The obligatory covertness of disjunctive vagy in multiple partitives I put down to a surface requirement.\(^{11}\) If wh-items fill the Spec,CTopP position, disjunctive vagy can stay covert, and, given economy considerations, since it can stay covert it has to

\(^{10}\) The reason to believe that this is the right structure for multiple partitives has to do with the fact that multiple partitives, just as run-of-the-mill contrastive topic structures contain internal coordinators like pedig/(?)meg. These only occur in contrastive topicalization structures in Hungarian. Recall the following example with Contrastive Topics from above:

(i)  \[\text{focP} \, \text{János} \, [\text{focP} \, \text{A BOLTBA ment}], \quad [\text{ctopP} \, \text{Péter} \, \text{pedig/meg/viszont/azonban} \, [\text{focP} \, \text{A PIACRA}]] \]

János-NOM the shop-ILL went-3SG Péter-NOM COORD the market-SUB

'János went to the shop, while Péter to the market.'

\(^{11}\) It is imaginable that the complementary distribution of wh-items and vagy follows from the fact that wh-items are in the head position of CTop\(^{9}\), leaving no space for vagy to be base-generated there. This would immediately explain why it is only simplex wh-items that can appear in multiple partitives (section 2.2.2): no XP category can fill a head in the functional structure.
stay covert as well. Approaching this phenomenon from a functional point of view, we can say that the paired (or n-tupled) wh-items are themselves capable of indicating that the clauses they appear in are disjoined. We could think about this as a kind of doubly-filled-comp filter: if CTopP hosts disjunction, either the disjunctor itself in the head position (vagy) or wh-elements in the specifier can appear overtly, both not both. This might be because wh-items can be considered functional elements (they form a closed class). As functional elements, paired usage of wh-items can be the grammatical markers of disjunction.

The syntactic analysis of Hungarian multiple partitives presented in this section might look rather abstract at first sight, since it introduces two obligatorily covert elements into the structure: a covert universal operator and a covert disjunctor. The presence of these two together (universal quantifier scoping over disjunction), however, gives us the exact semantics we need for multiple partitives: that of an exhaustive reading over the set denoted by the wh-items. Therefore both the universal quantifier and disjunction are a crucial part of the structure proposed here, and their presence is justified by the interpretation they give rise to. Luckily, however, there is more evidence for the proposed structure than just that. Interestingly, the existence of at least one of the abstract elements, disjunction, can be evidenced. In some specific circumstances, vary can be made overt in multiple partitives, as the following attested example shows:

(67) \[\ldots\text{s azóta} \quad \text{hol} \quad \text{az elvi alap} \quad \text{hiányzik} \ldots,\]
\[\ldots \text{and since-then} \quad \text{where} \quad \text{the conceptual base-NOM} \quad \text{miss-3SG} \]
\[\text{hol} \quad \text{az irodalmi szint}, \quad \text{vagy mindkettő} \]
\[\text{where} \quad \text{the literary level-NOM} \quad \text{or both-NOM} \]
\[\ldots \text{and since then sometimes the conceptual base is missing, sometimes the literary quality, sometimes both}\]

Élet és irodalom, 04.08.2000

This example (which describes the bad quality of present-day Hungarian journalism) instantiates a multiple partitive structure with three clauses. The first two clauses appear with the wh-item hol ‘where’ meaning ‘when’ (see section 2.2.1 above), referring to a situation where the conceptual base or literariness is missing from journalism. The last clause, however, unlike the first two, appears with the disjunctor vary, instead of a third hol, but expresses the same meaning as the latter would express\(^\text{12}\) — this refers to another set of occasions when both the conceptual base and literariness is missing. The spelling out of the situation in which both of these are missing in a third clause proves that the previous clauses contain exclusive

\(^{12}\)It has to be added that the most natural way of producing the intended meaning is with the use of wh-items throughout, as in the following example with a parallel construction (György Faludi & Eric Johnson: Feljegyzések az esőerdőből, p. 61):

(i) \[\text{szél} \quad \text{sivitt} \quad \text{kunyhőm} \quad \text{hol egyik}, \quad \text{hol másik}, \quad \text{hol mindkét oldalán} \]
\[\text{wind-NOM} \quad \text{whooshed-3SG} \quad \text{hut-POS1 SG} \quad \text{where one} \quad \text{where other} \quad \text{where both side-POS3 SG-SUP} \]
\[\text{‘the wind was whooshing sometimes on one side, sometimes on the other, and sometimes on both sides of my hut’}\]
disjunction, which results in having the first *hol* refer to distinct situations from the second one. In the first set of situations only the conceptual base is missing, in the second set of situation, only the literary level. Compared to these two types of situations the writer spells out a third type in the third clause, one in which both conceptual base and literariness are missing.

Note that the example in (67) shows that it is possible to include a *vagy* disjunctive operator in one of the clauses of multiple partitives. But when *vagy* appears, a *wh*-item cannot appear there in the same clause. That is, the *wh*-item and the disjunctive operator are in complementary distribution syntactically.

In this section I have argued for an analysis of Hungarian multiple partitives that claims that these have the structure of disjunction. The clauses in Hungarian multiple partitives are disjoined, and there is a covert universal operator that takes scope over this disjunction. This operator unselectively binds the *wh*-items, which are variables, in each clause. As I have mentioned before, there are several gains of this analysis. First, this treatment of Hungarian multiple partitive constructions automatically derives exhaustivity over the set denoted by the universal operator, and necessary contrast between the clauses, due to the nature of disjunction present in the structure (see section 3.1.1.2–3). If this property would not originate from the disjunction, it would be difficult to account for it. Also due to the properties of clausal conjunction (which draws on a contrastive topicalization structure), the obligatory presence of emphatic operators (54/55) and the order of these (58/59) (section 3.1.1.3) in each clause are explained as well.

**3.1.2.2. Further evidence for the disjunctive analysis of multiple partitives**

In this section I spell out some more arguments to the effect that Hungarian multiple partitives have the structure of disjunction. One comes from the fact that conjunctive coordinators can never be spelled out between the clauses in Hungarian-type multiple partitives. Another one comes from the availability of some contrastive coordinators in disjunction/multiple partitive structures. A third piece of evidence comes from Moroccan Arabic, where one finds a construction that has the properties of Hungarian-type multiple partitives and clearly involves variables in the position where *wh*-items show up in Hungarian-type languages.

The fact that in Hungarian-type multiple partitives an ‘and’ coordinator is systematically ungrammatical (as opposed to French-type languages, where it is grammatical, see section 1.2.2 and 1.2.3) gets a straightforward explanation in my analysis. If the proposed analysis in (66) is on the right track, we are dealing with a disjunctive structure in multiple partitives, and it follows from this that there is no syntactic position for a sentential ‘and’ conjunctive coordinator to show up — since it would be incompatible with the disjunctive semantics.

A further piece of evidence that we advance for the existence of a disjunctive structure in Hungarian multiple partitives comes from the fact that multiple partitives, just like disjunctive structures, can contain the internal coordinator *pedig*. The occurrence of this coordinator element, (otherwise appearing after Contrastive Topics) with clausal disjunctions was the prime reason to consider disjunctions as contrastive topicalization structures, as I have argued in Chapter 1. Interestingly,
pedig is the only coordinator from among those that mark contrastive topicalization that can appear with disjunction, meg/viszont/azonban which are all grammatical in run-of-the-mill contrastive topicalization structures are not grammatical in disjunction:

(68) Vagy A BOLTBA ment János, or the shop-ILL went-3SG János-NOM
vagy pedig/*meg/*viszont/*azonban A PIACRA.
or COORD the market-SUB
‘János went either to the shop or to the market.’

With multiple partitives the situation is similar, although somewhat different. Multiple partitives can appear with contrastive coordinators, but only with pedig/meg, and out of these two, meg fares less natural for native speakers:

(69) Ki A BOLTBA ment, who-NOM the shop-INE went-3SG
who-NOM COORD the market-SUB
‘Some went to the shop, the others to the market.’

Given that multiple partitives are disjunction structures, and thus comprise the structure in (68), we get an immediate explanation for the ungrammaticality of viszont/azonban, and the grammaticality of pedig. What we do not get a ready explanation for is why meg is also possible. I put this question aside here.

As far as the variable nature of wh-items in Hungarian multiple partitives is concerned, interestingly we can bring evidence for this from an unrelated language, from Moroccan Arabic. Moroccan Arabic (Jamal Ouhalla, p.c.) does not feature multiple partitives with full-fledged wh-items as we know from languages like Hungarian, Finnish, Russian, French and the other languages mentioned in section 1.2 above. Instead of spelling out wh-items, Moroccan Arabic spells out only the initial part of wh-items, namely shi, which is used to refer to human beings:

(70) shi msha l-l-mb’ab, shi msha l-l-cinema.
shi went-3SG to the stadium shi went-3SG to the cinema
‘Some went to the stadium, the others to the cinema.’

The item sh(i) forms part of the wh-paradigm, this is the morpheme that is constant in all wh-items. Ouhalla (1997) argues that this is the variable part of wh-expressions, as opposed to the inflectional part that spells out animacy/inanimacy distinctions for example:

(71) sh-kun ‘who’
sh-nu ‘what’
sh-men but ‘which girl’
Also, beside the \textit{wh}-paradigm, \textit{sh(i)} appears in indefinites of the type that is argued to be a true variable by Heim (1982) and Reinhart (1995) (see 72); with sentential negation (73); yes/no and constituent questions and negative clefts (74):

\begin{align*}
\text{(72)} & \quad \text{shi ktab} \\
& \quad \text{`some book or other'} \\
\text{(73)} & \quad \text{ma msha *}(sh) \text{ Omar} \\
& \quad \text{neg went } (sh) \text{ Omar} \\
& \quad \text{`Omar did not go.'} \\
\text{(74)} & \quad \text{a. (swwel-u) wa-sh qrat Nadia l-ktab?} \\
& \quad \text{asked-him Q-shi read Nadia the-book} \\
& \quad \text{`(I asked him) if Nadia read the book.'} \\
& \quad \text{b. sh-tsawwarat Mona Ali ishtara she-no} \\
& \quad \text{sh-thought Mona Ali bought what} \\
& \quad \text{`What did Mona think Ali bought?'} \\
& \quad \text{c. ma-shi qrat Nadia l-ktab} \\
& \quad \text{neg-shi read Nadia the book} \\
& \quad \text{`It is not the case that Nadia read the book.'}
\end{align*}

As Ouhalla (1997) argues, in all of these cases (72-74), \textit{sh(i)} represents a variable that gets bound in the syntax by some operator, in (72) by existential closure, in (73) and (74c) by negation, and in (74a,b) by the question operator. It is reasonable to think about this element as a pure variable in cases of (70) as well.

When we consider the meaning and properties of (70), we find that the properties exactly match that of Hungarian-type multiple partitives. The meaning given in (70) reflect that this structure is exhaustive, just like Hungarian-type languages (property (iii) in (10)). Also, it is impossible to spell out and `and' coordinator between the clauses (property (iv)). This squares exactly with the properties of Hungarian-type multiple partitives. Note that property (v) is missing in Moroccan Arabic for independent reasons. We do not find various \textit{wh}-items in this construction, due to the fact that it is not whole \textit{wh}-items that appear in these clauses, but only the element that is constant through all \textit{wh}-items.

The Moroccan Arabic construction in (70) therefore arguably instantiates a multiple partitive structure. If Ouhalla (1997) is right in concluding that \textit{sh(i)} in all its appearances is a variable, then the fact that this element figures in a construction that shows Hungarian-type multiple partitive properties provides evidence that variables are allowed in Hungarian-type multiple partitive structures. In Hungarian, the variables are full \textit{wh}-items due to the fact that Hungarian \textit{wh}-items, unlike Moroccan Arabic ones, cannot be broken into a variable part and an inflectional part in the syntax, the two parts cannot be used separately. Therefore we see full \textit{wh}-items in multiple partitives.

This section has shown that beside the immediate gains of an analysis in terms of universal quantification over disjunction for Hungarian multiple partitives, several other pieces of evidence support this treatment.
3.1.2.3. On the nature of the covert universal operator
The account I have given for Hungarian multiple partitives takes wh-items to be variables in disjoined clauses bound by a universal operator. The structure of these clauses is given here again, repeated from above:

\[
(66) \quad [\text{CTopP} \lor [\text{CTopP} \text{ki}_i [\text{CTop'} \text{vagy-} [\text{DistP/FocP} \ldots t_i \ldots]]]],
\quad [\text{CTopP} \text{ki}_i [\text{CTop'} \text{vagy-} \text{pedig} [\text{DistP/FocP} \ldots t_i \ldots]]]
\]

This structure contains two invisible elements: a covert universal operator that acts as an unselective binder and a covert disjunctor. While the presence of disjunction is empirically attested in examples like (67), the universal operator can never be made visible in the structure.

The obligatorily covert nature of the universal quantifier deserves some discussion. I took this universal quantifier to act as an unselective binder for the individual wh-items. For this reason, we expect that it behaves like other unselective binders known from the literature. Operators binding variables unselectively are well-known from the so-called donkey-sentences. One such sentence can be found in (75a):

(75) a. If a farmer owns a donkey, he beats it.

This sentence has (75b) as its logical paraphrase:

(75) b. All farmers (x) and donkeys (y) are such that if x owns y, then x beats y.

Due to this paraphrase relation, it was argued by Kamp (1981) and Heim (1982) that the indefinite NPs and the pronouns in a sentence like (75a) are variables (items without quantificational force on their own, but in need of that) bound by an adverb of quantification like always. The presence of the universal adverb of quantification can be easily argued for, since it can be made syntactically overt as well, as in (75b), which means the same as (75c):

(75) c. Always, if a farmer owns a donkey, he beats it.

Unlike adverbs of quantification like always functioning as an unselective binder, the universal operator I hypothesized in my analysis for Hungarian multiple partitives can never be spelled out in any form. This might weaken the proposal in the eyes of many. Although I cannot point at another construction in which the same universal operator can be found, it is natural to think about this item as a default unselective binder. It has been shown before that in the absence of overt adverbs of quantification it is always a universal interpretation that we get with donkey-sentences (Chierchia 1995). Consider the following pair:

(76) a. Mostly, if a farmer owns a donkey, he beats it.
    b. If a farmer owns a donkey, he beats it.
While (76a), which contains the adverb of quantification mostly, can only be interpreted as signalling out most, but not all farmer-donkey pairs that there were. In (76b), where there is no adverb of quantification present, the reading can only be that of (75c), but not that in (76a). This shows that covert quantificational elements are universal ones. Because of this reason it is actually expected that the covert operator in Hungarian multiple partitives, since it is always covert, has universal force. The only thing that is left to explain is why this operator can never be spelled out overtly.

While the reason for this is unknown to me, the covert nature of the operator can be clearly established. This can be done by way of showing that the operator present in multiple partitives has properties different from overt operators in Hungarian. Note that the invisible universal operator in (65) differs from the overt universal operator minden—‘every’ in Hungarian in detectable ways. Minden—, as was shown in Chapter 1, is a word level operator that binds wh-elements like ki ‘who’ for example, to give the quantifier mindenki ‘everyone’. The covert operator in multiple partitives, however, is not just a phonologically empty minden—. Overt minden—never licenses plural morphology on the NP it appears with: minden lány(*ok) ‘every girl(*PL)’, mindenki(*ok) ‘everyone(*PL)’. But the covert universal operator will have to allow for the bindee wh-items to appear with plural morphology, because the following example is grammatical:

(77) Kik a boltba mentek, kik a piacrak.  
who-PL-NOM the shop-ILL went-PL who-PL-NOM who-PL-NOM the market-SUB  
‘Some (more than one person) went to the shop, the others (more than one) went to the market.’

Examples like (77) are used and interpreted exactly as multiple partitives with singular wh-items, with the only difference that in (77) it is presupposed that the subgroup mentioned in each clause contains at least two individuals. Since the covert minden—operator can appear with kik as its bindee, we can conclude that the covert universal operator is not just the equivalent of minden—. Rather, it is a covert category with partly different properties from minden—. This shows that the coveryness of the universal operator is its defining property. It is like a PRO pronominal: it does not have an overt equivalent. This also explains why it is not found overtly.

3.1.2.4. Further properties of multiple partitives explained
The analysis I proposed above can account for the many properties of multiple partitives straightaway, as I have indicated in the previous section. In this section I turn to some further properties of the construction that need explanation, notably to two: the question of why multiple partitives can never make reference to empty sets, and why they cannot involve certain adjunct wh-items. As we will see, these properties can get an explanation in the proposed analysis.

The structure of Hungarian multiple partitives, (66), was devised to parallel (62i), which contains a universal quantifier extracted from both disjuncts:
As indicated, (62i) can have a reading where all individuals go to the shop and no one goes to the market (or vica versa). This reading however, is missing in (65), with multiple partitives:

(78)  
\[
\text{Ki a boltba ment, ki a piacra.}
\]

\[\text{who-NOM the shop-ILL went-3SG who-NOM the market-SUB}\]

‘Some (=all of them) went to the shop, and some (=none of them) went to the market.’

The question is, why is this reading not available with multiple partitives? I think the explanation for this difference between (62i) and (65) lies in the fact that the \(wh\)-items in multiple partitives are \emph{partitive phrases}. In section 3.2.2 below, I will argue for this point in more detail. Intuitively this is clearly the case: the \(wh\)-items single out subsets of a discourse set, which result from a partitioning operation. Notice that Partee et al (1990) define partitioning the following way:

(79)  
\[
\text{Given a non-empty set } A, \text{ a partition of } A \text{ is a collection of non-empty subsets such that (1) for any two distinct subsets } X \text{ and } Y, X \square Y \text{ and (2) the union of all subsets in the collection equals } A. 
\]

That is, if a set is partitioned to subsets, none of these subsets can be an empty set. Since \(wh\)-items in multiple partitives spell out subsets of a partitioned set, they cannot refer to empty sets either. This solves the problem posed by the unavailable reading in (78).

The last explanandum concerns the distribution of \(wh\)-items in Hungarian multiple partitives. It was mentioned in 2.2 that adjunct \(wh\)-items ‘how’ and ‘why’ on the one hand and complex \(wh\)-items like ‘which boy’ on the other do not participate in Hungarian-type multiple partitives, while \(wh\)-items as ‘who’, ‘what’, ‘when’, ‘where’, ‘which’ are fine. How to explain these properties?

The analysis proposed in (66) can easily explain the first property, the fact that ‘how’ and ‘why’ are systematically bad in Hungarian-type multiple partitives. I assume that these items are non-referential adjuncts, as opposed to ‘where’ and ‘when’, which, when adjuncts, are referential. The referential/non-referential adjunct distinction is syntactically active in Hungarian (as Kenesei (1998b) for example has shown when analyzing VP focus). Now, remember that the \(wh\)-items in Hungarian multiple partitives raise to the specifier of a projection that hosts a disjunctor. Disjunction is a scopal logical operation (see Larson 1985 for suggesting that there is
an operator element marking disjunctive scope in disjunctive structures). Putting aside questions like what marks scope in disjunction, it is clear that in (66), disjunction has scope at the level of the CTop, where we find the disjunctive vagy elements. In my analysis, the wh-items raise to the specifier of CTopP passing CTop, i.e. they raise out of the scope of disjunction. I propose that this kind of movement is only licensed if the moving element is referential. The reason for this is that movement of non-referential phrases would induce a Relativized Minimality violation. Relativized Minimality in Rizzi's (1990) formulation specifies that A-bar elements cannot move across A-bar positions, unless they are referential. Notice that the parallel between overt extraction of a whole minden-wh phrase across the disjunctive clauses, as in (62i) above, shows the exact same grammaticality as multiple partitives in this respect: non-referential 'why' and 'how' adjuncts cannot be extracted from disjunction structures either. Unfortunately, only 'how' can be demonstrated here because *mindenért (every-why) 'for every reason' does not exist in Hungarian.

(80) *Mindenhogyan vagy Pali viselkedett, vagy Péter.
    every-how or Pali-NOM behaved-3SG or Péter-NOM
    'For every way, either Pali behaved that way, or Péter.'

The difference in grammaticality between (80) and (62) above (recall that the latter featured argumental mindenki extracted) suggests that what causes ungrammaticality in (80) is the non-referential nature of 'how': this element cannot extract out of disjunctive clauses. The same carries over to multiple partitives as well, where extraction takes place in the same structure. This explains why 'why' and 'how' wh-items cannot show up in Hungarian-type multiple partitives.

The other set of facts left to explain involve the restriction on simple wh-items. Complex wh-phrases like 'which book' cannot be used in multiple partitives. Consider (44) in Hungarian and (45) in Finnish from above:

(44) b. *Melyik könyvet Péter olvasta el, melyiket Mari.
    which book-ACC Péter-NOM read-3SG PV which-ACC Mari-NOM
    'Péter read some books, Mari the others.'
(45) Olen oppinut tuntemaan monta miestä,
    have-1SG learned know-INF many men-ACC
    mitkä (*miehet) pitkä, mitkä lyhytä.
    which (man)-NOM tall which-NOM short
    'I have learned to know many men, some of them tall, the others short.'

As I have indicated in footnote 10, this set of facts could be easily explained if one were to claim that the wh-items in multiple partitives are just heads raising to CTop, and not XPs. I did not opt for this unorthodox view, because it would pose difficulties in explaining how wh-items can raise as high as CTop via head movement, while placing them into Spec,CTopP is natural given their interpretation as contrasted elements. This way, however, the restriction on simple wh-items
remains obscure; at this point I cannot but leave this issue for further research.

3.1.2.5. Other languages with Hungarian-type multiple partitives
The previous three sections have spelled out a structural analysis for Hungarian multiple partitives. This analysis was worked out specifically for Hungarian. In composing this analysis, I made crucial use of what can be known about the structure of clausal disjunction and the structure of multiple partitives, namely that both have the syntactic structure of contrastive topicalization. Then I argued that multiple partitives actually contain disjunction as well, though this is usually not spelled out with overt disjunctors. This analysis helps us explain the exhaustivity and multiplicity property of multiple partitives at once. It also explains why ‘and’ coordinators never appear in this type of multiple partitives.

Since these properties are shared by Finnish and Russian multiple partitives as well, it is hoped that an analysis along the same line as in Hungarian can be carried over to these languages, too. Unfortunately there are many factors that obscure the picture in these languages, and which make it impossible for me to spell out an in depth analysis similar to Hungarian. One is that, unfortunately, the position of wh-items in multiple partitives cannot be detected with so much precision as in Hungarian. It is certain that the wh-items in Finnish and Russian are fronted to a left-peripheral position, but it is difficult to tell what this position is, although what can certainly be known from the intonational pattern is that it is not the focus position, rather some sort of topical one. About the structure of disjunction, even less is known to me in the generative framework. At present therefore I have to confine myself to the analysis for Hungarian, and hope that it carries over (with possible minor modifications) to Finnish and Russian as well.

3.2. French-type multiple partitives
Section 3.1. has given an analysis for Hungarian multiple partitives. Unlike these, French-type multiple partitives are ‘rigid’ in the sense that they are restricted to one wh-item, ‘who’. Also, they are not exhaustive, and they can spell out an ‘and’ coordinator in between the clauses. Due to these properties, the French pattern must be different in its syntax from the Hungarian pattern. Disjunction cannot be present in the structure of the sentence, or else ‘and’ coordinators would be expected to be barred from the structure. Therefore, the analysis of French-type languages has to have a different foundation.
There are, however, properties that French-type multiple partitives share with Hungarian-type ones. These are *multiplicity* (property 10i), namely that there must necessarily be minimally two clauses with the same *wh*-items present in the sentence, and *contrast* (property 10ii), namely that each clause has to contain some contrasted elements. A suitable analysis will have to explain these properties as well as the ones that differ from the Hungarian pattern. In this section I offer an analysis for French-type multiple partitives in terms of partitivity. Before turning to the specifics of these, I indicate what is known about the position of *wh*-items in French-type partitives. This is important because it turns out that French-type languages differ with respect to this property as well as Hungarian-type ones.

### 3.2.1. Properties of French-type multiple partitives

One particular property that also contrasts with Hungarian-type languages is that the *wh*-items arguably do not raise to a left-peripheral position in languages like French, Hebrew and Georgian, although in the latter two cases it is not so easy to show.

In Hebrew, little can be known about the position of the *wh*-items due to the fact that all clauses in multiple partitives have to appear gapped, and the clause contains two constituents only: the *wh*-item (necessarily a subject) followed by a NP/PP/AP. For illustration, I repeat (14b) from above:

(81) ha-yeladim hizmin orxim, mi et dodat-o,
    the-children-NOM invited quests who-NOM ACC aunt-his
    mi et savat-o,
    who-NOM ACC grandma-his
    ‘The children invited quests, some his aunt, some his grandma.’

Since the multiple partitive clause cannot contain any other material, it is impossible to place the *wh*-items in the functional structure of the clause.

About the structure of French multiple partitives more can be known. In section 1.2.3 it was shown that *wh*-items can have functions other than that of subjects. (13d), repeated here shows them as indirect objects:

(13) d. Et aux moujiks accourus, il distribuait à qui une jambe
    and to moujiks-NOM running he-NOM distributed-3SG to who a leg-ACC
    à qui un bras.
    to who an arm-ACC
    ‘And to the moujiks who came running, to some he gave a leg, to some an arm.’

This example shows that the *wh*-items are postverbal in situ *wh*-items in each clause.

Georgian differs from French in that the *wh*-items have to appear as subjects. It can be shown, however, that these items do not raise to the usual position of *wh*-elements, to Spec,CP, but stay lower. We can show that even when the *wh*-items are clause initial, they are positioned lower than Spec,CP. Multiple partitives can be embedded under the subordinator *rom* ‘that’ (82a) which cannot be done for example
with questions that are undoubtable CPs (82b). In these latter cases the wh-items are undoubtably in Spec,CP:

(82) a. Man dainaxa rom vin maYeziši c’avida, (da) vin bazarši.
    he-ERG saw that who-NOM shop-INE went-3SG (and) who-NOM market-INE
    ‘He saw that some people went to the shop, others to the market.’

b. Me vik’ite (*rom)vin c’avida maYeziši, (da) vin bazarši.
    I-rnc asked (that) who-NOM went-3SG shop-INE (and) who-NOM market-INE
    ‘I asked who went to the shop, and who to the market.’

The clear difference between (82a) and (82b) indicates that wh-items in multiple partitives are not as high as Spec,CP. For now I assume that they are in situ, just like in French. That is, they appear in the positions where subjects appear in in surface syntax.

As far as the relation of the clauses in multiple partitives is concerned, the fact that ‘and’ coordinators can be freely present indicate that we are dealing with simple conjoined clauses. Due to the properties of conjunction, the construction simply samples out subsets of a discourse set by listing them in conjoined clauses. Listing, however, need not be exhaustive. This squares with our finding that French-type multiple partitives are never exhaustive, unlike in Hungarian-type multiple partitives. What is left to explain is multiplicity: why are multiple instances of wh-items required in multiple clausal structures? Why is one occurrence of a wh-item not grammatical? For this, we can find an answer in the behaviour of partitive phrases.

3.2.2. Multiplicity and contrast: wh-items as strong (partitive) indefinites
To explain the properties of French-type partitives, we have to start out by recognizing that wh-items in multiple partitives (of any kind) are partitive expressions. This is not surprising, given their semantics. Consider our prototypical example, from Hungarian again:

(83) Ki a boltba ment, ki a piacrca.
    who-NOM the shop-ILL went-3SG who-NOM the market-SUB
    ‘Some went to the shop, the others to the market.’

(83) specifies that among the contextually given people some went to the shop, and the others went to the market. That is, (83) necessarily partitions the set of people in the discourse into subsets that differ in what is predicated about them. The subsets that result from partitioning are referred to by the wh-items in each clause. The wh-items therefore are intuitively partitive in nature.

We can moreover show that the wh-items behave like partitive expressions syntactically, too. Partitive expressions can be either overt partitives, like two of the books or covert partitives like two books. While the former type cannot have any other reading than a partitive one, the latter can have different readings depending on
the configuration it appears in. In some contexts, it can show up with an existential meaning, while it acquires a partitive reading in some other context. As De Hoop (1992) argues, the partitive reading of cardinals (a strong indefinite reading) is triggered by the syntactic configuration. I want to claim that the wh-items we find in multiple partitives are similar to indefinites like *two books* with respect to partitivity. The syntactic configuration they find themselves in only makes them compatible with a partitive reading. Note that the reading one associates with the wh-items in multiple partitives is that of *some (NP)*, an indefinite expression, but only in the strong, partitive reading, not in the weak, existential reading:

(84) Ki a boltba ment, ki a piacra.

who-NOM the shop-ILL went-3SG who-NOM the market-SUB

"*There were some people going to the shop, and there were some going to the market."

Beside the strong, partitive reading of the wh-items, other evidence also supports their being partitive. The strongest piece of evidence comes from the fact that they occur with individual level predicates.

It is known since Milsark (1977) that individual level predicates cannot be predicated of weak indefinites. For illustration, consider the following English pair, and its Hungarian equivalent:

(85) a. Some unicorns are in the garden. ✓existential/✓partitive
b. Some unicorns are stupid. *existential/✓partitive

(86) a. Néhány egyszarvú van a kertben.

some unicorn-NOM is the garden-INE

'Some unicorns are in the garden.' ✓existential/*partitive
b. Néhány egyszarvú buta.

some unicorn-NOM stupid *existential/✓partitive

'Some unicorns are stupid.'

The English (85) with a stage level predicate is ambiguous in writing between a reading in which we claim the existence of some unicorns, which happen to be in the garden (existential reading), and a reading in which we refer to some of a larger group of unicorns being in the garden (partitive reading). With an individual level predicate, the existential reading is no longer available, only the partitive reading survives. For an explanation for this, see Kratzer (1989). The Hungarian pattern is in effect the same, although Hungarian differs from English in that (86a) cannot have a partitive reading to begin with. What matters is that with an individual level predicate the existential reading is not available, just like in English.

Applying this test to multiple partitives, we see that they can occur with individual level predicates. This then implies that the wh-items of which they are predicated must have a strong, partitive reading, not a weak existential one.
This test could be carried out in French-type languages as well. The equivalent of (87) is grammatical here, too:

(88) Les politiciens étaient très différents: qui était stupide, qui intelligent.
the politicians-NOM are very different who-NOM stupid who-NOM intelligent
‘Politicians are very different: some are stupid, some are intelligent.’

This indicates that wh-items in multiple partitives are always partitive expressions. Since this is an obligatory property of these wh-item, one might ask the question whether the partitive interpretation is linked to some other property of multiple partitives, i.e. does it follow from something else? It can be shown that it does. To see this, first we have to note that the partitive nature of the wh-items in multiple partitives, however, is never signalled the way it is done in overt partitive noun phrases. The larger set whose subsets they denote can never be spelled out in any language with the help of a prepositional phrase:

(89) *ki a fiúk közül
who the boys from
‘*who of the boys’

It would be interesting to see why overt partitives like (89) are ungrammatical, as far as I know in all languages, but I put this question aside for now.

Although forms like (89) where the partitive nature of the expression is overtly expressed do not exist, it can be shown that the partitive reading of the wh-items is syntactically encoded in multiple partitives, both in the Hungarian case and the French-type languages.

As for Hungarian, I have shown above in section 2.1.2.2. that multiple partitives involve contrastive topological structures, with the wh-items interpreted as contrastive topics. The partitive meaning, however, does not only pop up with wh-items in this positions, run-of-the-mill indefinite noun phrases also necessarily construe with a partitive meaning in Contrastive Topic positions, as (90) shows.

(90) Két almát PÉTER evett meg, hármashét pedig BÉLA.
two apples-ACC Péter-NOM ate-3SG PV three-ACC COORD Béla-NOM
‘Two apples were eaten by Péter, and three (of them) by Béla.’

In (90), the apples that Péter and Béla ate must have formed a well-definable set of apples talked about in the discourse. We could for example use (90) to describe what happened to a basketful of apples on the table, but we cannot use (90) to express that Péter ate two apples that he bought at the market and Béla picked three apples in the garden for himself. If the Contrastive Topics host indefinites, those must be
interpreted partitive with respect to a larger set.

In French-type languages the situation is the same. Although here the wh-items do not raise into a special topic position unlike in Hungarian, it turns out that the structure in which we find these wh-items unambiguously gives rise to a partitive interpretation for these elements. This can be shown independently of multiple partitives. Multiple occurrences of wh-items with an indefinite meaning, distributed over coordinated clauses results in preferred partitive interpretation of these wh-items. For illustration we can use Dutch as an example. Dutch is a language where a wh-item, wat 'what', is available for an indefinite reading, when this item stays in the VP (Postma 1994):

(91) Ik heb wat aan Marie gegeven.
    I-NOM have-1SG what-ACC to Marie given
    'I have given something to Marie.'

When we include the same wh-item, wat, in parallel positions of coordinated clauses, the preferred interpretation of these items is that of a partitive kind. Let us take the following sentence for illustration:

(92) Ik heb wat met Marie gegeten en wat met Piet.
    I-NOM have-1SG what-ACC met Marie eaten and what-ACC with Piet
    'I have eaten something with Marie and something with Piet.'

Preferably, (92) is taken to mean that I ate part of a meal with Marie, and another part of it with Piet, which clearly indicates that wat has a partitive flavour. The partitive construal can be more stretched, as well: it can be the case that I had food with Marie and Piet at different occasions, but even in this case, the type of food and occasion (breakfast, dinner, snack etc) has to be the same. This suggests that the indefinites have equal status with respect to interpretation.

I assume that the situation in French-type multiple partitives is just like in (92), with the preferred reading. That is, the idea is to treat French, Italian, Hebrew and Georgian wh-items as variables as well. Beside being interpreted as question words, they can also be interpreted with other meanings. What exactly the range of these interpretations is in each language should not concern us here. What is certain is that beside a question word interpretation, one of the available interpretations is that of a strong, partitive indefinite. The partitive reading, however, just like a question word reading, has to be licensed. The licenser, I claim, is the syntactic structure itself: the parallel between the clauses that hosts them.

This explains why multiplicity is needed: multiplicity of clauses is required to create parallelism. If there is only one clause present, the wh-item in that does not

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13It is interesting to note that a similar phenomenon was observed in section 2.1.2.1 above with respect to thematic focus. Thematic focus is only available when contrast is spelled out overtly in a parallel clause. The spellout of contrast seems to be obligatory in certain constructions; see also the case of exclusive focus in Arabic (fn. 4 in Chapter 1).
get a partitive interpretation:

(93) *Qui apportait un fromage.
    who-NOM brought a cheese-ACC
    ‘Someone brought a piece of cheese.’

Since the sentence is indicative, the *wh*-item is not licensed as a question word, either, and the derivation crashes. Adding parallel clauses to (93), however, salvages the situation since this makes it possible that the *wh*-items are construed as strong indefinites, just as in the case of (92) above:

(94) Qui apportait un fromage, qui un sac de noix, qui un quartier de chèvre.
    who-NOM brought a cheese-ACC who-NOM a bag of nuts-ACC who-NOM a piece of goat meat-ACC
    ‘One brought a piece of cheese, one a bag of nuts, one a piece of goat meat.’

This is the gist of the analysis of French-type multiple partitives. In effect we are dealing with a type of *wh*-indefinites in these languages, a necessarily strong indefinite, whose strong nature is syntactically marked as well. Syntactic marking in this case boils down to the requirement that there must be multiple clauses with multiple occurrences of the same *wh*-item. Exhaustivity is missing in this case, just as it is missing in (92) as well: it need not be the case that the things eaten with Marie and the ones eaten with Piet exhaust the larger set there was.

3.3. Conclusions

As I have shown in this chapter, multiple partitive constructions are complex sentences involving *wh*-items in parallel positions in coordinated clauses. The meaning of the *wh*-items is that of a partitive (strong) indefinite, like some (of a larger set). The variation that we find among the languages that possess these constructions indicates that there are two different types of multiple partitives: one where the *wh*-items in the construction exhaustively list the subsets of a larger set, and one where they do not need to exhaust the larger set completely. The first type occurs in Hungarian, Finnish and Russian; the second in French, Italian, Hebrew and Georgian.

I have argued that these two types correspond to two underlying structures. The *wh*-items are variables in both. Exhaustive multiple partitives (the Hungarian-type) involve clauses in disjunction, with a covert universal quantifier that scopes over the disjunction of clauses and binds the fronted *wh*-items in each disjunct. Disjunction results in exhaustive semantics. In non-exhaustive multiple partitives (the French-type) we also find *wh*-variables, but these are in situ positions in coordinated clauses. Their strong partitive interpretation is the result of structural parallelism between the clauses, which forces a partitive construal for them.
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Samenvatting

Dit proefschrift bespreekt de distributie en de syntactische eigenschappen van Hongaarse vraagwoorden. Deze woorden hebben verschillende functies: ze komen niet enkel voor in vraagwoordvragen, maar ook in andere constructies. Een onderzoek naar deze verschillende constructies leidt tot de hoofdstelling van dit proefschrift: vraagwoorden zijn variabelen in het Hongaars. Dit kan afgeleid worden uit het feit dat ze geen inherente kwantificationele betekenis bezitten. Ze verkrijgen hun betekenis in de syntax, van andere elementen die wel inherent kwantificationeel zijn. Bijgevolg is het de configuratie waarin ze voorkomen die bepaalt wat hun betekenis is en welke eigenschappen ze bezitten. Dit proefschrift illustreert dit en geeft ook syntactische analyses van de constructies waarin vraagwoorden het meest frequent voorkomen. Het betreft dan een herziening van bestaande analyses van enkelvoudige en meervoudige vraagwoordvragen, alsmede een analyse van een constructie die tot dusver nog niet is besproken in de generatieve literatuur: meervoudige partitieven. Er wordt aangetoond dat vraagwoorden in alle drie deze constructies die eigenschappen vertonen die we verwachten als we ze analyseren als variabelen die in de syntax moeten worden gebonden. De analyses die worden voorgesteld bieden een verklaring voor een aantal oude problemen die in vorige analyses onopgelost waren gebleven.

Het eerste hoofdstuk bespreekt de zinsstructuur van het Hongaars in zoverre die relevant is voor een beter inzicht in de fenomenen die aan de orde worden gesteld in de rest van het proefschrift. Het hoofdstuk bevat een korte inleiding op de zinsstructuur van het Hongaars, waarbij een onderscheid gemaakt wordt tussen neutrale en niet-neutrale zinnen; het biedt een overzicht van twee belangrijke elementen in het preverbale domein: exclusieve focus en getopicaliseerde constituenten (waarbij een systematisch onderscheid zal worden gemaakt tussen gewone topics, contrastieve topics en links gedisloceerde elementen); het gaat in detail in op de structuur van zinsconjunctie en het geeft een overzicht van de distributie en het gebruik van vraagwoorden zowel in het moderne Hongaars als in oudere stadia van deze taal. Daarbij zal worden aangetoond dat Hongaarse vraagwoorden zowel vroeger als nu functioneren als variabelen.

De daaropvolgende hoofdstukken zijn telkens gewijd aan één specifiek domein, waarin het gebruik van vraagwoorden in detail wordt besproken. Het hoofdstuk over enkelvoudige vraagwoordvragen gaat dieper in op de parallelle tussen vraagwoordverplaatsing en exclusieve focusverplaatsing op basis van hun syntactische, semantische en fonologische eigenschappen. Er wordt beargumenteerd dat ondanks duidelijke gelijkenissen, deze twee fenomenen fundamenteel verschillen en dat dit verschil in hun syntactische analyse uitgedrukt moet worden: vraagwoorden en exclusieve foci bezitten verschillende kenmerkenbundels (vraagwoorden hebben zowel een <tf> als een <wh> kenmerk, terwijl foci enkel het eerste bezitten). Bijgevolg moeten vraagwoorden, in tegenstelling tot foci, in een
bepaalde syntactische relatie komen te staan tot een interrogatief voegwoord in dezelfde zin. Deze relatie wordt geanalyseerd in termen van het checken van een <+wh> kenmerk. Het <+wh> kenmerk op vraagwoorden kan toegeschreven worden aan een Q_{wh} vraagwoordooperator die de vraagwoorden bindt op het woordniveau en die hen zo de juiste betekenis toekent. De Q_{wh} operator zorgt voor de semantische licensering van het vraagwoord, terwijl het checken van <+wh> kenmerken tegen een interrogatief voegwoord instaat voor de formele licensering van vraagwoorden in vragen. De eis tot formele licensering verklaart ook waarom vraagwoorden niet kunnen voorkomen in niet-interrogatieve zinnen, zoals relatiefzinnen of declaratieve zinnen. Verplaatsing van <+wh> kenmerken verklaart tevens waarom vraagwoorden niet voorafgegaan kunnen worden door kwantificatieelementen. Deze zouden immers de checking relatie tussen het vraagwoord en het voegwoord verstoren.

Het hoofdstuk over meervoudige vraagwoordvragen bevat een volledig overzicht van de verschillende types van meervoudige vragen in het Hongaars, inclusief hun syntactische eigenschappen, gebruik en interpretatie zoals die gereflecteerd worden in het soort antwoorden dat ze verwachten. Wat hun syntactische analyse betreft, wordt aangetoond dat vraagwoorden zich in twee types van meervoudige vragen niet uniform gedragen. Er is altijd één vraagwoord dat op dezelfde manier gelicenseerd wordt als vraagwoorden in enkelvoudige vragen (i.e. door binding door een Q_{wh} operator en het checken van <+wh> kenmerken tegen een interrogatief voegwoord), terwijl de andere zich verschillend gedragen. Deze laatsten worden op een andere manier gelicenseerd: in het ene geval worden ze, ten gevolge van de configuratie waarin ze zich bevinden, geïnterpreteerd als universele kwantoren; in het andere geval worden ze in situ in de syntaxis gelicenseerd, net zoals in situ-foci. Dit toont aan dat meervoudige vragen eigenlijk nooit echt meervoudig zijn. Ze bevatten nooit verschillende voorkomens van het type vraagwoord dat we in enkelvoudige vragen aantreffen.

Het laatste hoofdstuk behandelt de zogenaamde meervoudige partitieconstructie, waarbij in twee of meer nevengeschikte declaratieve zinnen vraagwoordconstituenten voorkomen. Meervoudige partitieeven worden niet geïnterpreteerd als een verzameling van enkelvoudige vragen. Ze karakteriseren groepen van individuen die reeds in de conversatie geïntroduceerd zijn. Het zijn de vraagwoordconstituenten die naar deze groepen verwijzen. Het hoofdstuk biedt een representatief overzicht van talen die deze constructie bevatten en beargumenteert dat de talen verschillen met betrekking tot de vraag of deze karakterisatie van individuen exhaustief is of niet. Om het verschil tussen deze twee taltypen te verklaren (type I, waarin het Hongaars hoort, heeft de exhaustieve lezing, terwijl in type II, het Franse type, meervoudige partitieeven niet-exhaustief worden geïnterpreteerd), stel ik een verschillende analyse voor voor de twee patronen. Exhaustieve meervoudige partitieeven bestaan uit disjuncte zinnen waarin vraagwoorden verplaatst zijn naar een zinsinitiële positie voor contrastieve topics en van buitenaf gebonden worden door een niet-selectieve universele operator. De exhaustieve interpretatie is dan het gevolg van het feit dat deze universele operator bereik heeft over de disjunctie van zinnen. Hierdoor verkrijgen vraagwoorden een betekenis die lijkt op die van gewone indefinieten. Niet-exhaustieve meervoudige partitieeven worden geanalyseerd in termen van partitiviteit: de vraagwoorden
functioneren hier als sterke partitieve pronomina en worden als dusdanig gelicenseerd door de meervoudigheid van de zinnen waarin ze voorkomen.

Dit proefschrift biedt een overzicht van vraagwoordconstructies en verricht een diepte-onderzoek naar verschillende fenomenen uit de vraagwoordsyntaxis van het Hongaars en andere talen. Zo vormt het niet alleen een verrijking van onze kennis van het Hongaars, het levert ook een belangrijke bijdrage aan het onderzoek naar de linkerperiferie en operator-variabele relaties en het verdiept ons inzicht in A-bar-syntaxis in het algemeen.
A jelen disszertáció a magyar kérdőszóelemelek eloszlásával és szintaktikai tulajdonságainak foglalkozik. Ezeknek az elemekeknek többféle funkciójuk is van: nemcsak kiegészítendő kérdésekben, de más környezetben is előfordulnak. A különböző környezetek vizsgálatából a disszertáció fő tézisét adó következtetésre jutunk: a kérdőszóelemekek a magyarban változók. Erre a kérdőszóelemekek abbból a tulajdonságából következtethetünk, hogy nincsen saját inherens kvantált jelentéselemük — a kvantált értelmezést a szintaxisban nyerik el, a mondatban jelenlevő különböző kvantoroktól. Eméllegva a szintaktikai konfiguráció határozza meg azt, hogy a kérdőszóelemek egy adott szerkezetben milyen jelentésben fordulnak elő, és milyen tulajdonságokkal bírnak.

Mindezek bemutatása után a leggyakoribb kérdőszóelemeket tartalmazó konstrukciók elemzése következik. Ennek során újragondolásra kerül az egyszeres és többszörös kérdések szerkezete, valamint elemzésére kerül egy sajátos konstrukció, mely a generatív irodalomban eddig még nem került területére: a többszörös partitívuszi szerkezet. A kérdőszóelemekek mindhárom területen olyan tulajdonságokat mutatnak, amelyeket változó mivoltuk alapján elvárunk tőlük, ezzel bizonyítva a fenti tézis helyességét. A kidolgozott elemzések pedig választ adnak olyan kérdésekre, melyeket korábbi elemzések megválaszolatlanul hagytak.

Az első fejezet a magyar mondat szerkezet azon részeivel foglalkozik, melyek a későbbi tárgyalás megértése szempontjából fontosak. Ezek között találjuk a magyar mondat szerkezet rövid bemutatását, külön jellemezve a semleges és nemsemleges mondatokat; az exkluzív fókusz és a topikalizált elemek jellemzését (külön kezelve három topikfajtát: a rendes topikokat, a kontrasztív topikokat és a balra kihelyezett összetevőket). Ez a fejezet szintén kifejti a mondatszintű díszjunkciók finomszerkezetét, és vázolja a kérdőszóelemek eloszlását és használatát, mind a mai magyar nyelvben és a nyelv korábbi állapotainak, rámutatva arra, hogy a kérdőszóelemek változóként viselkednek és viselkedtek korábban.

Az ezt követő fejezetek egy-egy sajátos területét dolgozzák fel a kérdőszóelemeket szintaxisának, a kérdések monddattanán (második és harmadik fejezet), illetve egy eddig még nem tanulmányozott konstrukcióval foglalkoznak (negyedik fejezet).

Az egyszeres kérdésekkről szóló fejezet a kérdőszómozgatás és az exkluzív fókusz-mozgatás között fellelhető párhuzamot fejti ki, szintaktikai, szemantikai és fonológiai ismérvek alapján, és amellett érvel, hogy a nyílt szintaxisban tapasztalható párhuzamon túl a két jelenség alapjaiban különböző, nem vonható össze. A kérdőszóelemekek és a fókusz különböző jegyekkel rendelkeznek (a kérdőszóelemekek mind <+f>, mind <+wh> jegyűk van, míg a fókusznak csak az előbbi). Ennek következtében a kérdőszóelemekek egy interrogatív mondatbevezetővel kell, hogy kapcsolatba lépjene a rejtett szintaxisban, melyet a <+wh> jegy ellenőrzésének foghatunk fel, és mely a fókuszált elemekre nem igaz. A
kérdésekben előforduló kérdőszöveget lévő \(<+wh>\) jegy a Q_{wh} kérdőoperátornak köszönhető – ez az operátor köti a kérdőszöveg elemeket a szavak szintjén, ezáltal biztosíta nekik kérdőszökként való értelmezésüket. A kérdőoperátor felelős a kérdőszavak szemantikai engedélyezéséért, míg az interrogatív C_{+}\text{-n} való \(<+wh>\) jegyellenőrzés a formális engedélyezésük része. Ez utóbbi engedélyezésre való igény magyarázza azt, hogy a kérdőszöveg elemek nem jelenhetnek meg neminterrogatív mondatokban (mint például vonatkozó mellékmondatokban vagy egyéb \(<-wh>\) mondatokban). A \(<+wh>\) jegy C_{-}\text{-be} való mozgatása pedig azt vonja maga után, hogy kérdőszöveg elemeket nem előzhetnek meg kvantorok a mondatban – ezen elemek jelenlété gátolná a kérdőszó és a mondatbevezető közötti jegymozgatást.

A többszörös kérdésekről szóló fejezet azoknak a különféle mondatoknak adja teljes szintaktikai és jelentésbeli jellemzését, melyekben több kérdőszóelemet találunk. Szintaktikai tulajdonságukat tekintve bemutatásra kerül, hogy a bennük található kérdőszöveg elemek nem egyformák: egy kérdőszó mindig olyan, mint az egyszeres kérdésekben szereplő kérdőszavak (melyeket Q_{wh} operator köt és \(<+wh>\) C_{+} engedélyez), míg a többi ezektől eltérő, rendhagyó tulajdonságokkal bír. A rendhagyó kérdőszavak az egyszeres kérdésekben előfordulóktól eltérő módon engedélyeződnéknak vagy a szintaktikai környezetük látja el őket az univerzális kvantorokéhoz hasonló jelentéssel, vagy helyben maradva nyernek szintaktikai engedélyezést, a helyben maradó posztverbális főkuszokhoz hasonlóan. Ez valójában azt mutatja, hogy a többszörös kérdések nem többszörösek olyan értelemben, hogy soha nem találunk több, egyszeres kérdésekben található kérdőszót bennük.

A jelen disszertáció a magyar kérdőszőelemek szintaxisának áttekintését és három kérdőszőelemeket tartalmazó monddattípus behatóbb tanulmányozását nyújtja, tekintettel más nyelvekben mutatott viselkedésükre is. Mindezzel hozzájárul a magyar szintaxisról, a mondatok bal perifériján található elemekről és az operátor–változó kapcsolatokról meglevő ismereteink bővítéséhez.
Curriculum Vitae

Anikó Lipták was born on March 26, 1973 in Békéscsaba, Hungary. She did her undergraduate studies at the Science and Art Faculties of Attila József University in Szeged, Hungary, majoring in Chemistry and English. Between 1996 and 2000 she held the position of a PhD researcher at the Holland Institute of Generative Linguistics at Leiden University. The present study is the result of her research.