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CORRELATIVE TOPICALIZATION*

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Abstract: This article takes a close look at correlatives in Hungarian and shows that they occupy a particular space in the typology of correlatives: Hungarian correlativization is solely used as a left-peripheral discourse strategy, which will be evidenced by the fact that correlatives display properties of topics, both when it comes to syntax and discourse. Concerning their discourse interpretation it will be argued that correlatives in Hungarian are aboutness topics, and take part in a discourse structure akin to simplifying left dislocation. Concerning their syntax, unlike Hindi correlatives in the analysis of Bhatt (2003), correlatives in Hungarian are not merged to their demonstrative associate in a local manner; nevertheless, their relationship to their associate is subject to locality considerations. Hungarian correlatives are merged at the edge of the CP that contains the base-generated DP and may undergo topic movement to the left, into higher clauses. The demonstrative associate on the other hand minimally raises to the left periphery of its CP, and alternatively into higher clauses, via topicalization or focusing. This means that Hungarian correlativization involves two mobile elements: both the correlative clause and the demonstrative are able to undergo movement.

Keywords: correlatives, topicalization, left dislocation, movement, Hindi, Hungarian

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1. Introduction and roadmap

The purpose of this paper is to give a proper analysis of correlative constructions in Hungarian. This will be done in two steps. In the first step it will be established that correlatives exist in the language to begin with. In the second step, Hungarian correlativization data will be analyzed, with emphasis on the internal/external syntax and the discourse role of Hungarian correlatives. It will be shown that Hungarian has a correlativization strategy that is partly **different** from that in Indo-Aryan languages (Srivastav 1991; Dayal 1996; Bhatt 2003), and constitutes a unique pattern, the peculiarity of which is that Hungarian correlatives have a **topical** discourse function. This finding is not only relevant to theoretical syntax, but to language typology, too, since it shows that correlativization is not uniform across languages.

The discussion will take the following shape. The paper starts with empirical groundwork on Hindi–Hungarian data comparison in section **2**. Using a list of properties that define Hindi correlatives, Hungarian left-peripheral free relatives will be shown to qualify as correlatives, too. Just like Hindi correlatives, Hungarian correlatives are also headless clauses, located to the left of their demonstrative pronominal associate, the latter complying with the exact same restrictions as in Hindi. In sections **3**–**5**, which contain the core material of the paper, Hungarian correlatives will be analyzed. Section **3** presents a detailed investigation into the fine structure of Hungarian correlatives, with emphasis on the relation between the correlative and its associated demonstrative, in simple and complex sentences. It will be shown that the correlative and the demonstrative do not form a constituent at any point in the derivation, unlike in Hindi, and in yet another aspect they also behave in a distinct manner. Both correlative clause and demonstrative need to occur in the left periphery of the clause: the correlative as a result of base-generation and the demonstrative as a result of topic/focus raising. Although they are generated independently of each other, the relation between the two is subject to locality: when correlative and demonstrative are not in the same clause, locality effects characteristic of topicalization can be discerned, which indicate that correlatives optionally move via topicalization across sentence-boundaries. On the basis of the observed patterns section **4** puts forward the claim that correlativization in Hungarian makes use of a strategy that is available for topical discourse constituents, in a structure that is closest to simplifying left dislocation constructions and which shares some of its

syntax with ordinary DP-left dislocation in Hungarian. Section **5** will recapitulate the findings, draw conclusions and highlight as well as attempt to explain the differences between Hindi and Hungarian correlativization.

The discussion in this paper is based on data collected in the form of written questionnaires from 13 Hungarian informants in 2005.[1] Variation across these speakers can be taken to be negligible unless otherwise indicated.

2. Correlatives in Hindi and Hungarian

Correlativization, a characteristic relativization strategy of Indo-Aryan languages, has been studied both in the typological literature (Downing 1973; Keenan 1985) and in the generative one (Srivastav 1991; Dayal 1996; Izvorski 1998; Bhatt 2003; den Dikken 2005; Lipták 2009). In essence it is a non-local strategy of relativization in which a restrictive relative clause is found to the left of the nominal item it modifies, either in adjacent position or at a distance. Consider the following Hindi example for illustration, where the correlative and the nominal are found adjacent:[2]

(1) [$_{\text{CorCP}}$ jo laRkii khaRii hai] *vo* lambii hai
rel girl standing is that tall is
lit. 'Which girl is standing there, she is tall.'

[1] These were: Huba Bartos, Péter Boross, Réka Bozzay, Ágnes Csanádi, János Duna, Judit Gervain, Beáta Gyuris, Veronika Hegedűs, Eszter Herczenik, György Lipták, Katalin Liszi, Lászlóné Sipos and Kriszta Szendrői. The Serbian data in section **3** are based on judgements by Boban Arsenijević, Marijana Marelj and Radoslava Trnavac.

[2] The notation and abbreviations are borrowed from Bhatt (2003), and are as follows: CorCP = correlative clause; RelXP = phrase headed by a relative pronoun; DemXP = phrase with a demonstrative (the correlative pronominal). Additional glosses are: acc = accusative case; aux = auxiliary; dat = dative; erg = ergative case; gen = genitive; poss = possessive; pot = potential (*may*); pros = prospective tense; ptc = participle, pv = preverb(al element); refl = reflexive; rel = relative morpheme; RC = non-correlative relative clause; subj = subjunctive; 1/2/3/sg/pl = person, number features. Nominative/absolutive case and tense are not glossed throughout. The English translations of the examples are often literal translations that aim to reflect the structure of the original sentences.

The correlative clause itself appears as a headless (free) relative and contains a relative phrase (RelXP, *jo laRkii* 'rel girl'). The main clause contains the nominal (DemXP, *vo* 'that') that is modified by this relative. The schematic structure of (1) can thus be given as in (2):

(2) $[_{\text{CorCP (subordinate clause)}} \ldots \text{RelXP} \ldots] [_{\text{IP (main clause)}} \ldots \text{DemXP} \ldots]$

The interesting property of correlative constructions is that while they are used as equivalents of English-type headed relatives, their syntax and semantics differ from these. The syntactic and semantic differences give rise to a set of properties that are not found with English-type headed relative clauses. These properties are summarized in (3):

(3) Characteristic properties of correlatives
   (a) the peripheral position of the relative clause
   (b) restrictions on the associated nominal: the demonstrative requirement
   (c) the free relative nature of the peripheral relative clause
   (d) the availability of multiple relative phrases

As Srivastav (1991) and Dayal (1996) argue, these properties clearly differentiate correlative constructions from ordinary, English-type embedded relatives, in which the nominal is construed as the head of relativization (in the pre-Kaynean sense of the word) and **precedes** the relative clause. Hindi possesses such a stategy, exemplified in (4):

(4) *vo laRkii* $[_{\text{RC}}$ jo khaRii hai] shaayad lambii hai
   that girl rel standing is maybe tall is
   'The girl who is standing may be tall.'

The difference between the correlative strategy in (1) and the headed strategy in (4) is not only that of word order or movement of the relative clause to the left. The two constructions are not transformationally related and cannot be derived from the same underlying base. For particular arguments to this effect, consult the original work of Srivastav (1991) and/or Dayal (1996) or an overview of these works in Lipták (2009).

In their semantics, correlatives are also distinct from ordinary headed relatives in a meaning component that is usually referred to as a 'maximalizing' operation. Just like free relatives in general, correlatives refer to a unique/maximal individual that has the property denoted by the relative clause (Jacobson 1995). In other words, they pick out a maximal

individual or maximal degree or the maximal set of individuals/degrees as their denotation.

Interestingly, Hungarian also possesses a left peripheral relative clause construction that shows the exact same properties as the Hindi (3), and thus should be considered to be a correlative. For illustration of this strategy, consider (5) where a (free) relative occurs to the left of its associated nominal, in the left periphery of the main clause:

(5) [$_{\text{CorCP}}$ Aki korán jön], *azt* a szervezők ingyen beengedik.
rel.who early comes that.acc the organizers free pv.admit.3pl
lit. 'Who comes early, the organizers will let him in for free.'

The relative clause on the left precedes the demonstrative *az* 'that', just like in Hindi. In the next section, it will be demonstrated that the Hungarian left peripheral relative construction in (5) is similar in nature to the Hindi (1) above, and in the same way as in Hindi, distinct from the headed strategy in (6):

(6) *Azt* [aki korán jön] a szervezők ingyen beengedik.
that-acc rel.who early comes the organizers free pv.admit.3sg
'Those who come early the organizers admit for free.'

The first subsection will deal with restrictions on the associated nominal in these constructions. The second one will turn to questions about the **headedness** of the left peripheral relative in analytical detail. As will be shown, all facts to be reviewed argue against deriving correlatives from underlying headed structures.

2.1. Restrictions on the associated nominal: the demonstrative requirement

As Srivastav (1991) and Dayal (1996) pointed out, there are a couple of properties that characterize only correlatives but not headed relatives in Hindi, necessitating a separate treatment of the two. This section mentions one of the most obvious differences: the restriction on the type of the associated nominal.

While headed relatives can contain any nominal in the head position, the nominal associated with correlatives can only be a definite item and has to contain a demonstrative (or a strong quantifier) in Hindi. Indefinites are ruled out:

(7) *ek laRkii* [$_{RC}$ jo khaRii hai] lambii hai (headed relative)
one girl rel standing is tall is
'A girl who is standing is tall.'

(8) *[$_{CorCP}$ jo laRkii khaRii hai], *ek (laRkii)* lambii hai. (correlative)
rel girl standing is one girl tall is
lit. 'Who is standing, a girl is tall.'

The situation is exactly the same in Hungarian:

(9) *Egy fiú,* [$_{RC}$ akivel Mari moziba jár], telefonált. (headed relative)
a boy rel.who.with Mari cinema.into goes called
'A boy who Mary goes to the cinema with called.'

(10) *[$_{CorCP}$ Akivel Mari moziba jár], *egy fiú* telefonált. (correlative)
rel.who.with Mari cinema.into goes a boy called
lit. 'Who Mari goes to the cinema with, a boy called.'

As can be seen from the examples in (7)–(10), correlatives can only be associated with a definite item. This definite associate moreover has to be a demonstrative item or a phrase formed with a demonstrative:

(11) [$_{CorCP}$ Akivel Mari moziba jár], **(az) a fiú* telefonált.
rel.who.with Mari cinema.into goes that the boy called
lit. 'Who Mari goes to the cinema with, the boy called.'

The observed split argues against deriving both structures from the same source. If correlatives were to derive from an underlying headed structure through leftward extraposition, we would not expect to find restrictions on the kind of nominal that follows the correlative, as there are no restrictions found with headed relatives. Correlatives, however, introduce restrictions on their own, which necessitates the view that they are altogether different from headed relatives.[3]

[3] For further distinguishing properties, see Dayal (1996, Chapter V/1.3). One important difference concerns the unavailability of stacking, both in Hindi and Hungarian correlativization (see, however, Davison 2009 on the possibility of stacking of correlatives in Sanskrit):

(i) *[$_{CorCP}$ jo laRkii khaRii hai] [$_{CorCP}$ jo lambii hai] *vo* Colaba-me rahtii hai
rel girl standing is rel tall is that Colaba-in lives is
lit. 'Which girl is standing, who is tall, she lives in Colaba.'

The definiteness restriction arguably finds its source in the **interpretive** properties of correlatives, which, as mentioned above, necessarily refer to a unique/maximal individual. Due to maximalization, correlatives can only associate with elements that are definite (Dayal 1996). For a similar semantically-based explanation of the definiteness restriction, see Grosu–Landman (1998) for an alternative, syntactic, one, see Mahajan (2000).

2.2. The headless nature of correlatives

Next to nominal restrictions, there are further pieces of evidence arguing against deriving correlatives from headed relatives. This section illustrates three such pieces of evidence. The first one presents a construction type that only exists in correlatives but not in headed relatives: multiple relatives. The other two involve Hungarian-specific arguments that concern the distribution of lexical items that can be found within correlatives and free relatives alike, but crucially not in headed relatives. All these phenomena argue that correlatives are free/headless relative clauses and not headed ones.

2.2.1. Indicators of headlessness I: multiple relatives

Multiple relatives are relatives in which we find two (or sometimes even more) relative pronouns/expressions, referring to more than one entity. Multiple relative pronouns can occur in correlatives:

(ii) *[$_{\text{CorCP}}$ Aki áll], [$_{\text{CorCP}}$ aki magas] *az* a barátom.
rel.who stands rel.who tall that the friend.poss.1sg
lit. 'Who is standing, who is tall, that is my friend.'

As is well known, headed relatives do not have this restriction: they can freely stack. Another difference is observable in the availability of RelXP–DemXP combinations in Hindi correlatives, which are not available with headed relatives:

(iii) (a) **vo laRkii* [$_{\text{RC}}$ jo laRkii khaRii hai] lambii hai
that girl rel girl standing is tall is

(b) [$_{\text{CorCP}}$ jo laRkii khaRii hai] *vo laRkii* lambii hai
rel girl standing is that girl tall is
lit. 'Which girl is standing there, that girl is tall.'

This difference is less noticeable in Hungarian, where RelXP–DemXP combinations are considered as too verbose in both patterns.

(12) [$_{\text{CorCP}}$ jis laRkiine jis laRkeko dekhaa] *usne usko* passand kiyaa (Hnd)
rel girl.erg rel boy.acc saw that.erg that.acc likes
lit. 'Which girls saw which boy, she liked him.'
(= Every girl liked the boy she saw.)

(13) [$_{\text{CorCP}}$ Aki amit kér], *az azt* elveheti. (Hun)
rel.who rel.what.acc wants that that.acc take.pot.3sg
lit. 'Who wants what, he can take that.'
(= Everyone can take what he/she wants.)

The main clause pronominals (*usne* 'that.erg', *usko* 'that.acc', *az* 'that' and *azt* 'that.acc') refer back to the individuals picked out by the relative clause. Now, while multiple relative pronouns are perfectly fine in correlatives, they are crashingly ungrammatical in headed patterns:

(14) **Usne usko* [$_{\text{RC}}$ jis laRkiine jis laRkeko dekhaa] passand kiyaa (Hnd)
that.erg that.acc rel girl.erg rel boy.acc saw likes
lit. 'She liked him, which girls saw which boy.'
(= Every girl liked the boy she saw.)

(15) **Az azt* [$_{\text{RC}}$ aki amit kér] elveheti. (Hun)
that that.acc rel.who rel.what.acc wants take.pot.3sg
lit. 'He can take that, who wants what.'
(= Everyone can take what he/she wants.)

Such sentences cannot be transformationally derived from an underlying headed structure, due to the fact that the relative clause, obviously one constituent, would have to be extracted from under two heads at the same time. These sentences provide prima facie evidence for the claim that the correlative is a base-generated free relative that has no syntactic head.

2.2.2. Indicators of headlessness II: Free choice *-ever*

The second set of data that provide umambiguous evidence for the headless nature of correlatives involves the free choice particle *csak* 'only', which corresponds to free choice *-ever* in English. This item, similarly to *-ever,* is only compatible with maximalizing semantics, and thus can only modify relative pronouns in free relative clauses, but crucially not in headed relatives.[4] This is illustrated with the difference between (16) and (17) both in Hungarian and in English:

[4] As an anonymous reviewer points out, an exception to this generalization are relatives headed by a universal quantifier:

(16) (a) **Azok* (*az emberek*) [$_{RC}$ akik csak ismerték Hugót] szerették őt.
that the men who.pl only knew.pl Hugó.acc loved.pl him
'The people who knew Hugó, loved him.'

(b) *The people [$_{RC}$ whoever knew Hugo], loved him.

(17) (a) [$_{RC}$ Akik csak ismerték Hugót] szerették őt.
who.pl only knew.pl Hugó.acc loved.pl him
'Those who knew Hugó, loved him.'

(b) [$_{RC}$ Whoever knew Hugo] loved him.

Turning to correlatives, we can notice that they are capable to host free choice *csak* freely (just like they can the equivalent of *-ever, -bhii* 'also/even' in Hindi):

(18) [$_{CorCP}$ Akik csak ismerték Hugót], *azok* szerették őt.
who.pl only knew.pl Hugó.acc those loved.pl him
lit. 'Whoever knew Hugó, they loved him.'

(19) [$_{CorCP}$ Akik csak ismerték Hugót], *azok az emberek* szerették őt.
who.pl only knew.pl Hugó.acc those the men loved.pl him
lit. 'Whoever knew Hugó, those people loved him.'

The distribution of *csak* 'only' then shows that correlatives in Hungarian are **free relative** clauses: if they were headed, free choice *csak* could not appear in these constructions, as it is in general forbidden in headed constructions according to the evidence of (16).

2.2.3. Indicators of headlessness III: Hungarian *amely* 'rel.which'

A further argument to the same effect comes from the peculiarities of a Hungarian relativizer, originally noticed in Kenesei (1994). It concerns the distribution of the relative pronoun *amely* 'rel.which', which can *only*

(i) Mindenki, aki csak ide betér, ittasan távozik.
everybody who only here enters drunk leaves
'Everyone whoever enters here leaves drunk.'

The same universal quantifier can also occur as the pronominal associate of a correlative clause (just like in the case of Hindi, see examples in Dayal 1996):

(ii) Aki csak ide betér, (az) mind ittasan távozik.
who only here enters that all drunk leaves
lit. 'Whoever enters here, that leaves drunk.

occur in relatives with a full nominal head, but not in free relatives, as the following example in (20) illustrates:

(20) Olvasom *(*azt a könyvet*) [$_{\text{RC}}$ amelyet ma vettem].
read.1sg that.acc the book.acc rel.which.acc today bought.1sg
'I am reading the book that I bought today.'

Without the overt head included in brackets, the sentence is ungrammatical, showing that *amely* 'rel.which' cannot be used in free relative clauses.[5] Interestingly, however, if the relative clause is to the left of the nominal item, we get an ungrammatical result:

(21) *[$_{\text{CorCP}}$ Amelyet ma vettem] *azt a könyvet* olvasom.
rel.which.acc today bought.1sg that.acc the book.acc read.1sg

The ungrammaticality of *amely* in the correlative (20) indicates that the correlative is also a **headless** relative clause, and thus is unable to accommodate the head-sensitive *amely*. That is, the main clause nominal *azt a könyvet* 'that book.acc' in (20) does not serve as a head for the relative clause in this example. The link between the relative on the left and this DP is not a head-dependent relation.

2.3. Interim summary

Using various pieces of evidence this section argued that Hungarian free relatives found in sentence-initial positions parallel Hindi correlatives and thus can be taken to constitute a special relativization strategy, correlativization. Evidence from the distribution of main clause nominals, multiple relatives, free choice and *amely* 'rel.which' relative pronouns were provided to argue that correlatives are not related to headed relatives, and are not derived from those syntactically. On the basis of these facts, the schematic structure of correlatives can be drawn as shown in (22a), to be contrasted with the fundamentally distinct relativization pattern of headed relatives shown in (22b):

[5] Linear dissociation from the head, however, does not result in ungrammaticality, as (i) shows:

(i) *Azt* a *könyvet* olvasom [$_{\text{RC}}$ amelyet ma vettem].
that.acc the book.acc read.1sg rel.which.acc today bought.1sg
'I am reading the book that I bought today.'

(22) (a) [$_{\text{CorCP}}$ RelXP ...] [$_{\text{IP}}$ ... DemXP ...] correlative pattern
(b) [$_{\text{IP}}$ ... [DemXP [$_{\text{RC}}$ RelXP ...]]] headed pattern

The finding that correlatives are free relatives that are not transformationally related to headed relatives, dovetails neatly with the findings of Kenesei (1984). Kenesei noticed (on the basis of unrelated data) that embedded sentential material (both argumental and adjunct clauses) can be postposed but cannot be preposed from constituents in Hungarian, and concluded that clausal constituents found in sentence initial positions are base-generated in their surface position.

In the rest of this paper, we take the correlative nature of Hungarian left peripheral relative clauses for granted. The discussion will set out to discover the fine-grained syntactic properties of correlativization in Hungarian. Section **3** is dedicated to the position of the correlative and the associate demonstrative, and their syntactic relationship with each other. Section **4** will continue the syntactic discussion by comparing correlatives to other typically left peripheral material and will address the discourse function of correlative clauses in full detail.

3. The syntactic structure of Hungarian correlatives

This section is dedicated to establishing the external syntax of Hungarian correlatives: their distribution within the sentence and their interaction with other material in the clause. We will achieve this by looking at word order variation and locality effects in simplex and complex sentences. In order to keep the discussion simple, the empirical field will be confined to **single** correlative clauses (correlatives with one relative expression) throughout. The proper analysis of multiple correlatives (see **2.2.1**) is referred to future research. The interested reader can consult Lipták (2000) on multiple correlatives in Hungarian and Gajewski (2008) on their semantics (based on Hindi).

Before turning to the Hungarian facts, this section will start out by reviewing the syntactic literature on Hindi correlatives, as this will prove a useful tool in discussing the specific properties. Subsections **3.2**–**3.5**, following this introduction on Hindi, will contain the core data from Hungarian.

3.1. Structural accounts of correlatives in the literature

As we have seen above, correlative structures involve a left-peripheral free relative clause (CorCP), followed by a demonstrative nominal associate (DemXP). The previous section showed that there are many syntactic indications that correlatives have to be treated **differently** from headed relatives, as CorCP does not start out as modifier to DemXP in the syntax. This brings up the following question: if CorCP is not dependent on DemXP in the manner of head-relative structures, what is the precise link between the two?

To answer this question, one can imagine many a priori possible scenarios, three of which were proposed in the literature for Hindi and Slavic correlatives. I start with the two scenarios that were originally proposed for Hindi.

The scenario proposed by Srivastav (1991) and Dayal (1996) for both single and multiple Hindi correlatives as well as by Bhatt (2003) for multiple correlatives can be called the **high-adjunction & binding** account. This can be summarized as follows:

(A-1) **High adjunction & binding account**

The correlative clause is base-generated adjoined to the matrix clause (IP); it behaves as a generalized quantifier and binds the DemXP, a variable (see 23).[6]

(23) $[_{\text{IP}}\ [_{\text{CorCP}}\ \ldots\ \text{RelXP}\ \ldots\ ]_i\ [_{\text{IP}}\ \ldots\ \text{DemXP}_i\ \ldots]]$

The second account was proposed in Bhatt (2003) (and essentially in Wali 1982 as well) for single Hindi correlatives and can be called the **low adjunction & CorCP movement** account:

(A-2) **Low adjunction & CorCP movement account**

The correlative is base-generated adjoined to DemXP and is optionally moved out of there (via A-bar scrambling/QR); DemXP undergoes optional scrambling as well (see 24).

(24) $[_{\text{IP}}\ [_{\text{CorCP}}\ \ldots\ \text{RelXP}\ \ldots\ ]_i\ [_{\text{IP}}\ \ldots\ (\text{DemXP}_j)\ [\ldots[[\ t_i\ ]\ \text{DemXP}_j\ ]\ \ldots]]]$

[6] A partly similar account was proposed by Rebuschi (2003) for Northern Basque, with the difference that the correlatives in this account do not behave as generalized quantifiers. Note also that Germanic comparative correlatives also are argued to be adjoined high in den Dikken (2004; 2005).

The most basic difference between these two accounts is the way they derive the observed CorCP – YP – DemXP word order. The low adjunction account does this via **movement** of the CorCP, while the high-adjunction account via **base-generation** of CorCP in the left periphery. As a result, the two accounts make crucially different predictions about locality effects found between CorCP and DemXP. Under the view that variable binding is not hindered by locality, the high adjunct account predicts no locality effects to be found in Hindi.[7]

However, as both Dayal (1996) and Bhatt (2003) show, Hindi clearly displays island effects between CorCP and DemXP. Consider for example the CNP island configuration in (25a), with actual data in (25b):

(25) (a) $[_{\text{CorCP}}\ ]_k[_{\text{IP}}\ \ldots\ [_{\text{DP}}\ \text{DP}\ [_{\text{RelCP}}\ \ldots \text{DemXP}_k\ \ldots]]\ \ldots\ ]$

(b) *[jo vahaaN rahtaa hai] mujhe vo kahaani
rel there stay is I.dat that story
jo Arundhati-ne *us-ke.baare.me* likhii pasand hai
rel Arundhati-erg that-about write pleasing is
lit. 'Who lives there, I like the story that Arundhati wrote about that boy.'

Since pronominal variable binding does not display locality effects, it is not straightforward to see how the high-adjunction analysis (A-1) could handle these. On the other hand, the low-adjunction analysis (A-2) predicts these cases to be ungrammatical.

Other arguments in favour of the low-adjunction analysis come from reconstruction effects, both in the domain of condition C effects as well as pronominal binding facts. Here I exemplify these with a binding principle C effect (Bhatt 2003):

(26) (a) $[_{\text{CorCP}}\ \text{R-exp}_l.\ \ldots\ ]_k\ [\ \text{pron}_l\ \text{DemXP}_k\ \ldots]$

(b) *[jo laRkii *Sita-ko*$_l$ pyaar kar-tii hai]$_k$ us-ne$_l$ *us-ko*$_k$ ʈhukraa di-yaa
rel girl Sita-acc love do is that-erg that-acc reject give-pfv
'He$_i$ rejected the girl who loves Sita$_j$.'

The name (*Sita-ko*) contained in the correlative cannot be coreferential with the pronoun (*us-ne*) in the matrix clause, which argues for a reconstruction step that takes the correlative back to a position c-commanded by this matrix pronominal. If correlatives originate from a

[7] This is a view that Dayal (1996) actually does not subscribe to. For her, DemXPs are variables with the same licensing conditions as A-bar traces.

DemXP-adjoined position and undergo obligatory reconstruction at LF, as shown in (27), this falls out.

(27) $[_{\text{CorCP}}$ R-exp$_l$ ... $]_k$ [pron$_l$ $[[_{\text{CorCP}}$ ~~R-exp$_l$ ...~~]] DemXP$_k$ ...]]

The most striking piece of evidence for the low adjunction & movement account comes from data whose relevance is somewhat underrated in other works (with the exception of Wali 1982): the possibility of generating the correlative clause and the correlate as a constituent in overt syntax as well. The existence of such structures has been acknowledged as a possibility in Dayal (1996), who, quoting Wali (1982), cites the following case:

(28) [$_{\text{DP}}$[jo ayee] *un-kaa kaam*] [$_{\text{DP}}$[jo gaye] *un-ke kaam-se*] behtar hai
rel came they-gen work rel came they-gen work-than better is
'The work of those who came is better than the work of those who left.'

As indicated by the bracketing, we find two pairs of a correlative–correlate phrase forming a constituent DP in this sentence. A similar configuration is found in (29). This example also contains two correlative–correlate sequences, each sequence involving the correlative clause adjacent to its own demonstrative:

(29) Ram-ne [jo laRkaa tumhaare piichhe hai]
Ram-erg rel boy your behind is

[$_{\text{DemXP}}$ *us laRke-ko*] [jo kitaab Shantiniketan-ne
that boy-dat rel book Shantiniketan-erg

chhaapii thii] [$_{\text{DemXP}}$ *vo kitaab*] dii
print-pfv was that book give-pfv
'Ram gave the book that Shantiniketan had published to the boy behind you.'

Facts like this follow without further assumptions if we assume that correlative clause and correlate form a constituent at some level and can be moved as one constituent in the syntax. These remarkable complex DP-structures force us to allow for DP-adjunction for the correlative at least as a possibility, and together with the observed locality effects they clearly vindicate the low adjunction & movement analysis.

On the basis of the above facts, the low adjunction analysis is clearly favoured to account for the Hindi data: CorCP and DemXP form one constituent in the base, where a CorCP–DemXP complex is formed by

adjunction. Due to the nature of adjunction, neither CorCP nor DemXP acts as a head. This local relation can be broken up by later movement of the CorCP to the left, giving rise to locality effects.

Note that there is yet anther possible way to account for these locality effects. This was proposed by Izvorski (1998) for Hindi and South Slavic and represents the third structural account of correlatives, summarized in (A-3):

(A-3) **High adjunction & DemXP-raising account**

The correlative is base-generated adjoined to the matrix clause (CP); DemXP moves from argumental position to Spec,CP via A-bar movement, which is covert in Hindi (a *wh*-in-situ language), and overt in Slavic (a *wh*-ex-situ one) (see 30).

(30) $[_{\text{CP}}\ [_{\text{CorCP}}\ \ldots\ \text{RelXP}\ \ldots\ ]\ [\text{DemXP}_i]\ [_{\text{CP}}\ \ldots\ \sout{[\text{DemXP}_i\ ]}\ldots]]$

This **high adjunction & Dem-raising** account can be viewed as a combination of the two approaches mentioned above. It keeps the high, CP/IP-adjoined position for the correlative and takes care of locality effects via raising the DemXP in an A-bar manner. According to Izvorski, the movement step depicted in (30) is parametrized according to properties of *wh*-in-situ in a language: it takes place **overtly** in overt movement languages like Bulgarian and Serbian, and **covertly** in covert *wh*-movement languages like Hindi.[8]

The next three sections turn to Hungarian correlatives and their properties concerning word order, reconstruction and locality effects. It will be shown that the Hungarian facts actually require an account **different** from the above three accounts above. The account for Hungarian will most closely resemble (A-3), but will differ from that in important details.

3.2. Word order and reconstruction in simplex sentences

To start with the most basic properties of correlatives in simplex sentences, let us take stock of the basic word order facts we find in sentences where correlative and DemXP are in the same clause.

Correlatives in Hungarian are clause-initial constituents. They precede all other material within the clause:

[8] Arguments against the viability of this account for Hindi were provided in Bhatt (2003). In **3.3.3** it will be shown that this account does not hold for Serbian uniformly, either.

(31) [$_{\text{CorCP}}$ Aki korán jön] *azt* a szervezők ingyen beengedik.
rel.who early comes that.acc the organizers free pv.admit.3pl
lit. 'Who comes early, the organizers will let him in for free.'

If a topic precedes a correlative, we get a somewhat marginal result, which is dispreferred to having the correlative in initial position (cf. 32a)—this effect, however, is presumably constrained by PF-requirements of the sort that prefers clausal material to be initial: if the topic preceding the correlative is quite short, the result improves (cf. 32b):

(32) (a) ??A szervezők [$_{\text{CorCP}}$ aki korán jön] *azt* ingyen beengedik.
the organizers rel.who early comes that.acc free pv.admit.3pl
lit. 'Who comes early, the organizers will let him in for free.'

(b) Én [$_{\text{CorCP}}$ aki korán jön] *azt* ingyen beengedem.
I rel.who early comes that.acc free pv.admit.1sg
lit. 'Who comes early, I will let him in for free.'

Correlatives furthermore are not only confined to matrix clauses, but can be embedded, too:

(33) Péter hallotta, hogy [$_{\text{CorCP}}$ aki korán jön],
Péter heard that rel.who early comes
azt a szervezők ingyen beengedik.
that.acc the organizers free pv.admit.3pl
lit. 'Péter heard that who comes early, the organizers will let him in for free.'

The placement of DemXP has to comply with a strong restriction and a preference. It is strongly the case that DemXPs have to occur preverbally under all circumstances, irrespective of the case of the demonstrative.[9] Ordinary demonstratives do not have to comply with this restriction.

[9] The examples in (34) are ungrammatical in present-day Hungarian, but they give a distinctly archaic/poetic feel to several speakers, recalling poems like the following one by Dezső Kosztolányi (*Könyörgés az ittmaradókhoz*, 1934):

(i) [$_{\text{CorCP}}$ Aki halandó], folyvást botlik *az* /
rel.who mortal continuously falls that
számomra csak a kétes a vigasz.
for.me only the doubtful the consolation
lit. 'Who is mortal, he always stumbles / for me, only the doubtful provides consolation.'

(34) (a) *[$_{\text{CorCP}}$ Aki korán jön], a szervezők ingyen beengedik *azt*.
rel.who early comes the organizers free pv.admit.3pl that.acc
lit. 'Who comes early, the organizers let him in for free.'

(b) *[$_{\text{CorCP}}$ Aki korán jön], a szervezők megfeledkeztek *róla*.
rel.who early comes the organizers pv.forgot.3pl that.about
lit. 'Who comes early, the organizers forgot about him.'

The preference in their placement concerns their position vis-a-vis the correlative clause: there is a slight preference to keep the two in adjacent position. When asked, speakers tend to prefer this configuration as opposed to one in which the adjacency is missing as a result of an intervening topic. Nevertheless, both adjacent and non-adjacent structures can be considered acceptable:

(35) [$_{\text{CorCP}}$ Aki korán jön],
rel.who early comes
(*azt*) a szervezők (?*azt*) INGYEN engedik be.
that.acc the organizers that.acc free admit.3pl pv
lit. 'Who comes early, the organizers let him in FOR FREE (... and not for example for money).'

Let us subject the sentence in (35) to further scrutiny in order to see what positions CorCP and DemXP occupy in it. To be able to place these, we first provide some background information on the left periphery of Hungarian in (36) (based on, among others, É. Kiss 1987; Brody 1995). (36) indicates that when Spec,FocP is filled, the verbal head fronts to Foc^0 and strand its preverb:

(36) [$_{\text{TopP*}}$ YP [$_{\text{FocP}}$ ZP [$_{\text{Foc'}}$ V^0 [$_{\text{AspP}}$ pv [...]]]]

With this structure in mind, the left peripheral constituents of (35) easily fall in place. The DP *a szervezők* 'the organizers' as well as *az* 'that' in both positions are **topics**, which can be seen from the fact that they occur higher than the optional preverbal contrastive focus *ingyen* 'for free', which occupies Spec,FocP. The focused nature of the latter is shown in turn by the fact that it is necessarily adjacent to a verbal head, which is indicative of focusing in Hungarian (cf. (36) again).

Summarizing, the structure of the correlative in (35) can be given in (37). The (a) example shows a correlative construction in which a DemXP is in topic position adjacent to CorCP; and the (b) example shows one where DemXP is in a non-adjacent position:

(37) (a) $[_{\text{CorCP}}$ RelXP... $]$ $[_{\text{TopP}}$ *DemXP* $[_{\text{TopP}}$ YP $[_{\text{FocP}}$ ZP $[_{\text{Foc}'}$ V^0 [pv...]]]]]
(b) $[_{\text{CorCP}}$ RelXP... $]$ $[_{\text{TopP}}$ YP $[_{\text{TopP}}$ *DemXP* $[_{\text{FocP}}$ ZP $[_{\text{Foc}'}$ V^0 [pv...]]]]]

Next to the position of topics, DemXP can also occupy the focus position of the clause, in which case it has focus interpretation, illustrated in (38):

(38) $[_{\text{CorCP}}$ Aki rel.who korán early jön], comes (?a the szervezők) organizers AZT that.acc engedik admit.3pl be pv ingyen. free
lit. 'It is who comes early, whom the organizers let in for free.'

If there is a topic between CorCP and DemXP, the sentence gets slightly marked due to the non-adjacency of CorCP and DemXP. Without the intervening topic phrase, the sentence is fully grammatical.[10] (39) corresponds to the following structural representation:

(39) $[_{\text{CorCP}}$ RelXP... $]$ $[_{\text{TopP}}$ (YP) $[_{\text{FocP}}$ *DemXP* $[_{\text{Foc}'}$ V^0 [pv...]]]]

On the basis of the above discussion, which resulted in (37) and (39), the structural requirements of correlativization can be summarized in (40):

(40) **Properties of Hungarian correlative constructions**

(i) both CorCP and DemXP occur in the left periphery of the clause

(ii) CorCP is preferably the initial left-peripheral element in its clause

(iii) DemXP occupies a topic position or that of contrastive focus

[10] The placement of DemXP in the focus position is actually obligatory if the correlative also contains focus:

(i) ?$[_{\text{CorCP}}$ Aki rel.who KORÁN early jön], comes (a the szervezők) organizers AZT that.acc engedik admit.3pl be pv ingyen. free
lit. 'It is those who come EARLY (as opposed to those who come LATE) whom the organizers let in for free.'

This kind of focus-matching effect is not confined to Hungarian. It affects any correlative-type construction, even conditional clauses in English (on whose correlative status see Bhatt–Pancheva 2006):

(ii) Even if you dress up as a clown, EVEN THEN/*then I am not going to this party of yours.

Note also that such a matching requirement is unidirectional, as is shown by the main text example in (38): focus on DemXP does not force focus within the CorCP. I put this unidirectionality down to the semantics of focus projection out of relatives and the fact that CorCP necessarily precedes DemXP.

The fact that CorCP and DemXP can be separated by other (topic) material, as shown in (35) and (38), indicates that CorCP and DemXP need **not** form a constituent in overt syntax. If they did, as in (41), we would not expect any topic to be able to intervene between the two, contrary to facts like (35) and (38):

(41) $[_{\text{CP}}\ [[_{\text{CorCP}}\ \text{RelXP}\ldots\ ]\ [\textit{DemXP}_i]]\ [_{\text{TopP}}\ [\ \ldots\ ]]]$

We have to conclude then that (41) is the wrong representation for the surface syntactic structure of correlatives. The question is if such a structure is available at some earlier stage of the derivation.

In the rest of this section, I argue that it is not: CorCP and DemXP do not start out adjoined to each other. Arguments to this effect come from the simple fact that, unlike in Hindi, there is no other position in Hungarian in which these items are found adjacent to each other. We cannot find them in any VP-internal position, as neither CorCP, nor DemXP can ever occur in such a position:

(42) *A szervezők ingyen beengedik $[_{\text{CorCP}}$ aki korán jön] *azt.*
the organizers free pv.admit.3pl rel.who early comes that.acc
lit. 'Who comes early, the organizers let him in for free.'

Neither can we find **multiple** occurrences of CorCP–DemXP sequences in the left periphery of the clause, unlike in Hindi, where such sequences are possible (recall (28) from above). In Hungarian there can only be one correlative clause and one demonstrative expression per sentence. Two cannot occur:

(43) *$[_{\text{CorCP}}$ Aki korán jön] *azt*
rel.who early comes that.acc
$[_{\text{CorCP}}$ akik az ajtóban állnak] *azok* ingyen beengedik.
rel.who.pl the door.in stand.3pl those free pv.admit.3pl
lit. 'Who comes early$_1$, who stand in the door$_2$, they$_2$ will let him$_1$ in for free.'

The strongest evidence against the claim that CorCP and DemXP are generated together comes from coordination facts. CorCP–DemXP sequences are forbidden when they are coordinated, which clearly argues that the two do not form a superordinate category:

(44) *[$_{DP}$[$_{CorCP}$ Aki korán jön] *azt*] és [$_{DP}$ [$_{CorCP}$ aki
rel.who early comes that.acc and rel.who
tudja a jelszót] *azt*] a szervezők ingyen beengedik.
knows the password.acc that.acc the organizers free pv.admit.3pl
lit. 'Who comes early and who knows the password, the organizers will let him in for free.'

As correlative and demonstrative do not form a constituent, they cannot be coordinated with another CorCP–DemXP sequence, either. It has to be noted that the ungrammaticality of (42) is not due to the independent impossibility of coordinating clausal constituents. The exact same free relatives can be coordinated without problem provided there is only one DemXP following the whole coordinated CorCP & CorCP sequence, as shown in (45):

(45) [$_{\&P}$[$_{CorCP}$ Aki korán jön] és [$_{CorCP}$ aki tudja a jelszót]]
rel.who early comes and rel.who knows the password.acc
azt a szervezők ingyen beengedik.
that.acc the organizers free pv.admit.3pl
lit. 'Who comes early and who knows the password, the organizers will let him/them in for free.'

As the bracketing indicates, in this case we are dealing with coordinated correlatives. The coordination phrase as a whole is resumed by the demonstrative that follows this &P.

These considerations argue that the correct structure of CorCP–DemXP sequences is one in which these do **not** form a constituent. In single clauses, the distribution of correlative clauses and their DemXP is as described in (37) and (39), repeated here for convenience as (46) and (47):

(46) (a) [$_{CorCP}$ RelXP…] [$_{TopP}$ *DemXP* [$_{TopP}$ YP [$_{FocP}$ ZP [$_{Foc'}$ V^0 [pv…]]]]]
(b) [$_{CorCP}$ RelXP…] [$_{TopP}$ YP [$_{TopP}$ *DemXP* [$_{FocP}$ ZP [$_{Foc'}$ V^0 [pv…]]]]]

(47) [$_{CorCP}$ RelXP…] [$_{TopP}$ (YP) [$_{FocP}$ *DemXP* [$_{Foc'}$ V^0 [pv…]]]]

What we arrived at in (46) and (47) is the distribution of correlatives in simple sentences. The correlative clause is sentence initial on the surface and seems to be base-generated there. There is no evidence for it to originate from a lower sentence-internal position, where it forms a consituent with the demonstrative. This conclusion is also supported by the lack of

reconstruction effects in sentences modelled on the basis of the Hindi examples in (26). In (48), for example, a name contained in the correlative is freely coindexed with the subject of the main clause:

(48) [$_{\text{CorCP}}$ Akit szeret Mari$_i$], *azt* meghívta pro$_i$ a buliba.
rel.who.acc loves Mari that.acc invited the party.to
'Who(ever) Mari loves, she invited her to the party.'

If the correlative clause were to reconstruct back into the object position, we would expect that coindexation between the *pro* subject of the main clause and the R-expression *Mari* 'Mari' in the relative would be impossible. Note that embedded relatives cannot be construed with coreference between the pronominal subject of the main clause and the R-expression, due to the fact that the former c-commands the latter:

(49) Meghívta pro$_i$ *azt* [$_{\text{RC}}$ akit szeret Mari$_{*i}$] a buliba.
invited that.acc rel.who.acc loves Mari the party.to
'Who(ever) Mari loves, she invited to the party.'

Note also that the behaviour of (48) is not due to some kind of pure linearity effect. An R-expression inside an object DP cannot be coindexed with the subject pronoun in Hungarian, even when the former is left-peripheral and thus precedes the latter:

(50) [$_{\text{DP}}$ Az Annáról$_i$ írt könyvet] nem olvasta pro$_{*i}$ még.
the Anna.about written book.acc not read-3sg yet
'She did not read the book about Anna yet.'

If reconstruction effects are diagnostics of movement (Fox 1999), these facts argue **against** a movement scenario/low adjunction of correlatives (A-2 above) and **in favour** of the base-generation hypothesis (A-1 or A-3).

3.3. Locality effects with correlatives

The previous section addressed the placement possibilities of the correlative clause and the demonstrative pronoun in simple sentences. In this section we look at their placement in complex sentences as well, in the context of locality relations. Locality relations in sentences with correlatives will be studied with the help of the usual movement diagnostics: island effects. These will be demonstrated in two steps. In the first step,

I illustrate cases in which both CorCP and DemXP are found within the same clause, but at a distance from their base clause. In the second step, we will consider cases where CorCP and DemXP are located in different clauses, CorCP in a higher clause than DemXP. Theoretical conclusions based on the data will be presented along the way.

3.3.1. Locality effects with long distance correlativization I: CorCP and DemXP in the same clause

Let us start with cases in which CorCP and DemXP are found in the same clause at a distance from their base clause. To begin, recall (33) above, which demonstrated that correlatives can be embedded. Apart from being embedded under a matrix predicate, CorCP and DemXP can also occur dislocated from their embedded position, surfacing in the left periphery of the **matrix clause**. If the embedding clause contains no island, we get two grammatical options differing in word order properties. These correspond to the two possibilities of DemXP placement we observed in simple clauses:[11]

(51) [$_{\text{CorCP}}$ Akik korán jönnek], *azokat*$_i$ Péter hallotta,
rel-who.pl early come that.pl.acc Péter heard
hogy ingyen beengedik t_i.
that free pv.admit.3pl
lit. 'Who come early, Péter heard that they will be admitted for free.'

(52) [$_{\text{CorCP}}$ Akik korán jönnek], *AZOKAT*$_i$
rel.who.pl early come that.pl.acc
hallotta Péter hogy ingyen beengedik t_i.
heard Péter that free pv.admit.3pl
lit. 'It was those who come early, whom Péter heard that they will be admitted for free.'

As the word order indicates, (51) contains *azokat* 'those.acc' in topic position before the higher verb *hallotta* 'heard', and (52) contains DemXP

[11] RelXP and DemXP were changed to plural in these examples in order to avoid the reading in which *az* 'that' before the embedding verb could be understood as the sentential expletive accompanying the finite embedded clause. Note also that from here onwards the subject of the embedded clause is represented by a plural *pro*. For convenience, the sans serif font indicates the embedding clause and **bolding** highlights the nominal that introduces the islands in the examples to follow.

in the focus position. As is shown by the translations, the interpretation reflects this difference in the syntactic positioning of DemXP.

To test whether (51) and (52) involve a movement dependency of any sort, we have to check island effects. If the embedding clause contains a complex noun phrase island, the sentence is ungrammatical both with the topic and the focus order:

(53) *[$_{\text{CorCP}}$ Aki korán jön], azt_i Péter hallotta **a** **hírt**,
rel.who early comes that.acc Péter heard the news.acc
hogy ingyen beengedik t_i.
that free pv.admit.3pl
lit. 'Who come early, Péter heard the news that they are admitted for free.'

(54) *[$_{\text{CorCP}}$ Aki korán jön], AZT_i hallotta Péter **a** **hírt**,
rel.who early comes that.acc heard Péter the news.acc
hogy ingyen beengedik t_i.
that free pv.admit.3pl
lit. 'Who come early, Péter heard the news that they are admitted for free.'

These island effects clearly show that we are dealing with movement in both cases. The question is, what kind of movement is involved in these examples?

Let us start with (53) first, which contains the DemXP in topic position. Given that Hungarian topics undergo movement, it is presumably due to the movement of DemXP to topic position that the sentence is ungrammatical. As (55) shows, topicalization in Hungarian is sensitive to CNPC islands:[12]

(55) *A koncertre$_i$ hallotta Péter **a** **hírt**,
the concert.to heard Péter the news.acc
hogy ingyen beengednek mindenkit t_i.
that free pv.admit.3pl everyone.acc
'To the concert, Péter heard the news that they admit everyone for free.'

[12] The island sensitive nature of topicalization is subject to substantial individual variation, which gives rise to different records of grammaticality judgements in the literature as well. Here I follow É. Kiss (1992), who gives a full star to these sentences, as this reflects the judgements of my informants as well. See footnotes 13 and 16 for further variation on judgements concerning other properties of topicalization.

It is likely then that in (53) we are dealing with a case of topicalization as well, namely the topicalization of DemXP. Whether CorCP undergoes any movement is untestable since DemXP movement gives rise to an island violation that in itself makes the sentence ungrammatical.

Turning to (54), this example involves focusing of the DemXP, as is visible from the DemXP–verb adjacency. Focusing (or *wh*-movement) is also island-sensitive in Hungarian, as (56) illustrates:

(56) *A DIÁKOKAT$_i$ hallotta Péter **a hírt**, hogy ingyen beengedik t_i.
the student.pl.acc heard Péter the news.acc that free pv.admit.3pl
'It was the students whom Péter heard the news that they admit them for free.'

This in turn evidences that the focus movement step of *azt* 'that.acc' in (54) can be responsible for the ungrammaticality of this example.

What do we know about any possible movement of the correlative clause itself? Do the correlatives move from one clause to the other in these examples? If indeed these examples involve topic/focus movement of the DemXP, we have no evidence about the movement of the correlative clause itself. It might have moved or have not moved. Either way, we get ungrammaticality: if it had not moved, the sentence is out because the movement of DemXP is illegitimate. If it had moved the result should be similarly ungrammatical. It is important to note that its movement, if it takes place at all, needs to be topicalization, due to the fact that multiple application of topic movement is allowed in Hungarian, as (57) shows, unlike multiple application of focusing (cf. 58), which is forbidden (due to there being only one focus slot per clause that can be filled, Horváth 1981; É. Kiss 1981; Brody 1995):

(57) A diákokat_i a koncertre$_j$ Péter hallotta,
the student.pl.acc the concert.onto Péter heard
hogy ingyen beengedik t_i t_j.
that free pv.admit.3pl
lit. 'The students, to the concert, Péter heard that they will be admitted for free.'

(58) *A DIÁKOKAT$_i$ A KONCERTRE$_j$ hallotta Péter,
the student.pl.acc the concert.onto heard Péter
hogy ingyen beengedik t_i t_j.
that free pv.admit.3pl
lit. 'It was the students, to the concert, that Péter heard that they will be admitted for free.'

Adding all pieces together, on the basis of the examples in this section we arrive at the conclusion that in complex sentences, the demonstrative associate of correlatives can undergo either long-distance topicalization or long distance focus movement, while there is insufficient evidence for the movement of the correlative clause. The latter can be base-generated in the root clause, or have undergone topicalization. This state of affairs is summarized in (59):

(59) (a) $[_{\mathrm{CP2}}\ [_{\mathrm{CorCP}}\ \mathrm{RelXP}\ldots]\ [_{\mathrm{TopP}}\ \mathit{DemXP}_i\ [_{\mathrm{CP1}}\ \sout{\mathit{DemXP}_i}\ \ldots\ ]]]$ topic movement of DemXP
(b) $[_{\mathrm{CP2}}\ [_{\mathrm{CorCP}}\ \mathrm{RelXP}\ldots]\ [_{\mathrm{FopP}}\ \textsc{DemXP}_i\ [_{\mathrm{CP1}}\ \sout{\mathit{DemXP}_i}\ \ldots\ ]]]$ focus movement of DemXP

In establishing this pattern, we have based ourselves on the likely assumption that whichever scenario obtains for the correlative clause, the DemXP necessarily has to move. In other words, that the island effects cannot be due to a structure in which only the correlative clause moves, via topicalization, and the DemXP is base-generated in the left periphery, like in (60):

(60) (a) $[_{\mathrm{CP2}}\ [_{\mathrm{CorCP}}\ \mathrm{RelXP}\ldots]\ [_{\mathrm{TopP}}\ \mathrm{DemXP}_i\ [_{\mathrm{CP1}}\ \sout{\mathit{CorCP}_i}\ \ldots\ ]]]$ topic movement of CorCP
(b) $[_{\mathrm{CP2}}\ [_{\mathrm{CorCP}}\ \mathrm{RelXP}\ldots]\ [_{\mathrm{FopP}}\ \textsc{DemXP}_i\ [_{\mathrm{CP1}}\ \sout{\mathit{CorCP}_i}\ \ldots\ ]]]$ focus movement of CorCP

Fortunately, Hungarian provides us with empirical evidence against this scenario, in the realm of extraction facts involving a different kind of island. This kind of island is transparent to topicalization but not to *wh*-/focus-movement in Hungarian, and contains a relative clause that modifies a non-specific NP in an existential sentence. I will refer to these as **presentational CNP contexts**.[13] Unlike focus and *wh*-movement, which

[13] The availability of topicalization out of presentational CNPs is subject to subtle variation in Hungarian. In the pool of 13 informants whom I consulted one speaker (whom I will refer to as speaker A) systematically does not allow for topicalization in these cases. Another speaker (speaker B) does not allow for topicalization out of nominal relatives, as in (61), but allows for topicalization across 'when'-clauses under existential predicates, as in (i):

(i) A lányokat$_i$ volt [$_{\mathrm{RC}}$ amikor ingyen beengedték t_i].
the girls.acc was rel.when free pv.admitted.3pl
lit. 'The girls, there were occasions, when they were admitted for free.'

Note also that purpose adjunct clauses are another context in which topicalization, as opposed to *wh*-movement, is licensed in Hungarian:

are impossible across these, topicalization is fine across them (cf. É. Kiss 1981). (61) shows a topicalization case, and (62) a focus-extraction:[14]

(61) A lányokat$_i$ volt **koncert**, [$_{\text{RC}}$ amire ingyen beengedték t_i].
the girls.acc was concert rel.what.to free pv.admitted.3pl
lit. 'The girls, there were concerts, where they were admitted for free.'

(62) *A LÁNYOKAT$_i$ volt **koncert**, [$_{\text{RC}}$ amire ingyen beengedték t_i].
the girls.acc was concert rel.what.to free pv.admitted.3pl
lit. 'It was the girls who, there were concerts, where they were admitted for free.'

Using presentational islands instead of CNP islands in correlative structures, we can now selectively test for topicalization as opposed to focusing. If correlativization in complex clauses involving presentational islands is sensitive to the kind of position the DemXP occupies, allowing for topic placement but not focus placement, this is evidence that the DemXP involves movement in these structures, which is topicalization and focusing respectively. If we find no sensitivity to this, it is the topic movement of the CorCP that causes the ungrammaticality in structures (53) and (54) above.

(ii) (a) A cipőmet$_i$ leguggoltam [$_{\text{CP}}$ hogy bekössem t_i].
the shoe.poss.1sg.acc pv.crouched.1sg that pv.tie.subj.1sg
'My shoes, I crouched down to tie.'
(b) *Mit guggoltál le [$_{\text{CP}}$ hogy bekössél t_i]?
what.acc crouched.2sg pv that pv.tie.subj.2sg
lit. 'What did you crouch down to tie?'

Speaker A systematically rejects (iia) as well, while speaker B does not. Note also that for speaker B the correlative pattern (example 63 below in the main text) is only fine across *when*-clause contexts (i) and purpose clauses (iia), (see fn. 16), but not across nominal relatives.

[14] The explanation behind these grammatical cases of extraction out of islands is unclear to the. The presentational context and the non-specific nature of the head nominal are prerequisites, not only in Hungarian but also in other languages where similar phenomena occur. Note for example the contrast in the English (ia) and (ib) from Levine (2005), who attributes the effect to processing factors:

(ii) (a) This issue is something I can never find anyone I can argue with about.
(b) *??This issue is the problem which I can never find the physicist who I can argue with about.

The Hungarian facts are fully paralleled by Norwegian topic-extraction cases, too (Engdahl 1997).

Carrying out the test, the result shows that there is sensitivity to DemXP placement: when DemXP takes part in the topicalization pattern (cf. 63), extraction across presentational CNPs is grammatical, and when the DemXP is focused (cf. 64), extraction is out:

(63) [$_{\text{CorCP}}$ Aki korán jött], azt_i volt **koncert**,
rel.who early came that.acc was concert
[$_{\text{RC}}$ amire ingyen beengedték t_i].
rel.what.to free pv.admitted.3pl
lit. 'Who came early, there were concerts where they were admitted for free.'

(64) *[$_{\text{CorCP}}$ Aki korán jött], AZT_i volt **koncert**,
rel.who early came that.acc was concert
[$_{\text{RC}}$ amire ingyen beengedték t_i].
rel.what.to free pv.admitted.3pl
lit. 'Who came early, there were concerts where it was them who were admitted for free.'

The difference in extraction possibilities exhibited in these examples reinforces the conclusion we drew on the basis of the extraction facts in (53)–(54): long distance correlatives involve movement of the DemXP, when these are found in the same clause as CorCP. DemXP movement can be long topicalization, or long focusing.

3.3.2. Locality effects with long distance correlativization II: CorCP and DemXP in different clauses

Before turning to the actual data involving CorCP and DemXP across a clause boundary, some notes of caution are in order. First, the separation of CorCP and DemXP that these configurations bring about present a slight degradation of judgements compared to those in the previous section. This is due to the effect that was mentioned in section **3.2** above: non-adjacency between CorCP and DemXP **always** results in a slight degradation of grammaticality. When CorCP and DemXP are found across clausal boundaries, the same effect is present as well. This affects all cases to be seen in this section (indicated with the ? mark). Second, it ought to be mentioned that speaker variation concerning the data to be presented in this section is slightly more robust than the negligible variation one might find elsewhere in correlativization data. To keep the presentation transparent, I will proceed to describe and analyze the pattern that I found was shared by 8 of my 13 consulted speakers.

The variation found among the other 5 who do not always share these judgements will be addressed in footnotes. Such partitioning of results is motivated by the fact that the judgements of the 8 speakers were **uniform** and **systematic** throughout, while the judgements of the other five speakers were systematic in 3 cases, and non-systematic in 2 cases. I will only address the systematic cases below.

After these introductory notes, let us turn to the patterns themselves. A finite clause intervening between CorCP and DemXP is grammatical (modulo the slight degradation due to non-adjacency) both with DemXP in topic or focus position:

(65) ?[$_{\text{CorCP}}$ Aki korán jön], Péter hallotta, hogy *azt* ingyen beengedik.
rel.who early comes Péter heard that that.acc free pv.admit.3pl
lit. 'Who come early, Péter heard that they are admitted for free.'

(66) ?[$_{\text{CorCP}}$ Aki korán jön], Péter hallotta, hogy *AZT* engedik be ingyen.
rel.who early comes Péter heard that that.acc admit.3pl pv free
lit. 'Who come early, Péter heard that it is them who are admitted for free.'

If the intervening clause contains a complex noun phrase island, the sentence is ungrammatical with both the topic and the focus orders:[15]

(67) %*[$_{\text{CorCP}}$ Aki korán jön], Péter hallotta **a hírt**,
rel.who early comes Péter heard the news.acc
hogy *azt* ingyen beengedik.
that that.acc free pv.admit.3pl
lit. 'Who come early, Péter heard the news that they are admitted for free.'

(68) *[$_{\text{CorCP}}$ Aki korán jön], Péter hallotta **a hírt**,
rel.who early comes Péter heard the news.acc
hogy *AZT* engedik be ingyen.
that that.acc admit.3pl pv free
lit. 'Who come early, Péter heard the news that it is them who are admitted for free.'

Given that definite CNP islands are indicative of movement in Hungarian (see (55),(56) above), the data in (67)–(68) present us with the unavoid-

[15] The type of example (67) demonstrates is judged with a subtle variation (it was indicated with % in Lipták 2004, which was based on a survey with fewer speakers than the present study). The majority of the speakers I consulted for the present paper rejected these data.

able conclusion that there is movement involved across the islands in these cases. Since DemXPs did not leave the most embedded clause, this can only be due to the correlative clauses themselves moving. What kind of movement do they undergo?

Definite CNP islands are strong islands for *wh-* and topic-movement as well, so they are not good testing grounds for differentiating between the two. A good testing ground is topicalization-licensing **presentational CNPs**, which were introduced in the previous section. As the following examples illustrate, these sentences are grammatical (again, modulo degradation due to non-adjacency), regardless of the position DemXP occupies in the most embedded clause, topic (cf. 69) or focus (cf. 70):[16]

(69) ?[$_{\text{CorCP}}$ Aki korán jött], volt **koncert**,
rel.who early came was concert
[$_{\text{RC}}$ amire *azt* ingyen beengedték].
rel.what.to that.acc free pv.admitted.3pl
lit. 'Those who came early, there were concerts where they were admitted for free.'

(70) ?[$_{\text{CorCP}}$ Aki korán jött], volt **koncert**,
rel.who early came was concert
[$_{\text{RC}}$ amire *AZT* engedték be ingyen].
rel.what.to that.acc admitted.3pl pv free
lit. 'Those who came early, there were concerts where it was them who were admitted for free.'

[16] The data in (69) and (70) were rejected by 3 speakers in my sample systematically. One was speaker A, who rejects topicalization across all types of presentational CNPs in general with normal topics, too (see fn. 13). The second one was speaker B, who accepts topicalization across CNPs across existential *when*-clauses only (see fn 13 again for illustration of these). Speaker B accepted correlativization only across *when*-clauses, too:

(i) [$_{\text{CorCP}}$ Aki korán jött] volt [$_{\text{RC}}$ amikor *azokat* ingyen beengedték].
rel.who early came was rel.when those.acc free pv.admitted.3pl
lit. 'Who came early, there were occasions when they were admitted for free.'

The third speaker (speaker C) accepted ordinary topicalization across all types of presenational CNPs in general, but allowed correlatives in *when*-clause extractions only, as in (i).

As the reader can verify, my analysis of correlative topicalization in terms of topicalization is supported by the judgements of speakers A and B. Speaker C, for whom correlatives have to comply with stronger restrictions than topicalization, remains unaccounted for.

(69) shows long distance correlativization with a DemXP in embedded topic position, and (70) shows the same when DemXP is in embedded focus. These key examples immediately answer our question posed above, about the type of movement that correlatives take part in. Since **presentational CNPs** only let topics through, both examples have to involve an overt step of topicalization, by the correlatives themselves, as indicated in (71):

(71) (a) $[_{\text{CP2}}\ [_{\text{CorCP}}\ \text{RelXP}\ldots]_j \ldots\ [_{\text{CP1}}\ \sout{[_{\text{CorCP}}\ \text{RelXP}\ldots]_j}\ [_{\text{TopP}}\ \textit{DemXP}_i\ [\sout{\textit{DemXP}_i}\ \ldots\ ]]]$
(b) $[_{\text{CP2}}\ [_{\text{CorCP}}\ \text{RelXP}\ldots]_j \ldots\ [_{\text{CP1}}\ \sout{[_{\text{CorCP}}\ \text{RelXP}\ldots]_j}\ [_{\text{FocP}}\ \textit{DemXP}_i\ [\sout{\textit{DemXP}_i}\ \ldots\ ]]]$

That is, both CorCP and DemXP move in both cases: CorCP undergoes topicalization from the left periphery of the most embedded clause to the left periphery of the matrix. DemXP on the other hand undergoes short movement in the base clause, either via topicalization (71b) or via focusing (71b).

3.3.3. Locality effects as a result of (covert) DemXP raising?

Before closing this section, it is important to note that the data in (69)–(70) help us exclude another possible scenario for the observed island effects. Recall the **high-adjunction & DemXP-movement** analysis of Izvorski (1996) for South Slavic facts, which was briefly introduced in (A-3) in section **3.1** above. According to this analysis, correlatives are base-generated adjoined to CP and the locality effects are due to overt or covert A-bar movement of DemXP to Spec,CP, along the lines of (30) repeated here from above:

(30) $[_{\text{CP}}\ [_{\text{CorCP}}\ \ldots\ \text{RelXP}\ \ldots\ ]\ [\text{DemXP}_i]\ [_{\text{CP}}\ \ldots\ \sout{[\text{DemXP}_i\ ]}\ldots]]$

The Hungarian structures under this analysis would be (72a) for topic DemXPs and (72b) for focused ones:

(72) (a) $[_{\text{CP2}}\ [_{\text{CorCP}}\ \text{RelXP}\ldots]\ [_{\text{TopP}}\ \textit{DemXP}_i\ [_{\text{CP1}}\ [_{\text{TopP}}\ \sout{\textit{DemXP}_i}\ \ldots\ ]]]$ topicalization at LF
(b) $[_{\text{CP2}}\ [_{\text{CorCP}}\ \text{RelXP}\ldots]\ [_{\text{FocP}}\ \textit{DemXP}_i\ [_{\text{CP1}}\ [_{\text{FocP}}\ \sout{\textit{DemXP}_i}\ \ldots\ ]]]$ focusing at LF

For the Hungarian data at hand this analysis would mean that DemXP has to raise covertly to the matrix clause. This, however, runs into difficulties as it predicts that covert movement of the DemXP, if it existed, would result in different locality effects in the two cases. Recall that in (69), *azt* is a topic in the base, and is thus expected to raise as a topic at LF, too, while in (70) *AZT* is a focus and is thus expected to raise

as a focus. Although there is little known about the properties of covert topicalization and focusing in Hungarian (see Szabolcsi 1997 or Surányi 2003), it is likely that they give rise to **different** locality properties from each other, given that their overt equivalents are also different. As (69) and (70) do not exhibit any difference in locality, we have to conclude that they do not involve covert movement by the demonstrative items. Instead, what we find in these examples is that the correlative clauses move themselves, and in a uniform topicalization step in both cases.

Before closing this section, it has to be noted that the above sketched LF-movement account does not hold for all speakers of Serbian, either, the language it was proposed for by Izvorski (1996). On the basis of data I collected from three informants, there is evidence for (at least) two distinct Serbian idiolects that treat correlatives differently. One idiolect is in conformity with Izvorski's claims and data (I will refer to this as **Serbian B** because it belongs to one of my three informants), the other idiolect (**Serbian A**, spoken by the other two informants) patterns fully with Hungarian.

Izvorski's most important evidence for proposing overt *wh*-movement of DemXP in Serbian comes from the observation that this language, being a language where overt *wh*-movement only affects one *wh*-phrase (see Rudin 1988), it is impossible to front more than one DemXPs into the highest Spec position of the sentence in multiple relatives:

(73) (a) ?*[$_{\text{CorCP}}$ Kome se kako predstaviš] *taj tako* misli da treba da te tretira.
whom refl how present.refl he thus thinks that should to you treat

(b) [$_{\text{CorCP}}$ Kome se kako predstaviš] *taj* misli da *tako* treba da te tretira.
whom refl how present.refl he thinks that thus should to you treat
'The way you treat yourself, this is how people think they should treat you.'

In my survey, this pattern is characteristic of Serbian B only, but not of Serbian A: my two Serbian A informants do not confirm this difference. Both of them accept (73a) and (73b) as fully grammatical sentences, and one of them actually prefers (73a) to (73b). This is clear evidence that in Serbian A DemXPs do not raise as *wh*-phrases to Spec,CP. Interestingly, we can provide evidence that Serbian A moves DemXPs as **topics**. This can be shown with the help of locality effects across presentational CNP islands. These kind of islands let topicalization through in Serbian A, as shown in the contrast between the topicalization case in (74) and the *wh*-movement case in (75):

(74) Ovog čoveka nema **policajca** [$_{RC}$ koji ne bi uhapsio].
this.acc man.acc not.have policeman.gen which not would arrest.ptc
'This man, there is no policeman who wouldn't arrest him.'

(75) *Koga nema **policajca** [$_{RC}$ koji ne bi uhapsio]?
who.acc not.have policeman.gen which not would arrest.ptc
'Whom is there no policeman who wouldn't arrest him?'

The same context licenses correlatives for my Serbian A speakers, with DemXP left inside the base clause:

(76) [$_{CorCP}$ Ko parkira ovde] nema **policajca** [$_{RC}$ koji *tog* ne bi kaznio].
who parks here not.have policeman.gen who that.acc not would fine.ptc
'Who parks here, there is no policeman who wouldn't fine that person.'

(76) is thus fully parallel to (74) and forces the conclusion that in Serbian A, correlatives also involve topicalization by the correlative clause itself, just like in Hungarian. Note that independently of the movement of CorCP, it is possible to **focus** the correlative pronominal, as evidenced by the interpretation of (77) and heavy stress on *to* 'that' in the following example:

(77) [$_{CorCP}$ Što Jovan hoče jesti], to mu zena skuva.
what Jovan wants eat.inf that cl.dat wife cooks
'Whatever Jovan wants to eat, that is what his wife cooks for him.'

This suggests that Serbian A is **fully** parallel to Hungarian: DemXPs undergo topicalization or focusing, and CorCP can undergo topicalization long distance.

Returning to the patterns established by Serbian B, note that next to the judgements indicated above in (73), sentences (74)–(76) are all ungrammatical for this informant. This state of affairs can be interpreted in line with Izvorski's claim that DemXPs undergo *wh*-movement in this dialect. As a result, movement of two DemXPs is dispreferred in complex clauses, and presentational CNP islands block this movement as well (given that they block *wh*-movement, see (75)). If this is why (75) and (76) are ungrammatical for this informant, the fact that (74) is ungrammatical, too, is an unrelated fact of the language. There is, however, another way of interpreting the same facts. If the judgements on (73) are **not** indicative of *wh*-movement, unlike what Izvorski believes, the ungrammaticality of both (74) and (75) is actually compatible with the

idea that DemXPs are topicalized: DemXPs are ruled out in the same contexts as topicalization is.

Returning to Hungarian and summing up the results, in this section I have reviewed locality effects with long distance correlativization in Hungarian and Serbian and arrived at the conclusion that they unambiguously argue for the topic movement of the correlative clauses. These clauses are not base-generated in the position they appear in but undergo movement. The situation is summarized in (78), repeated here for convenience:

(78) (a) $[_{\mathrm{CP2}}\ [_{\mathrm{CorCP}}\ \mathrm{RelXP}\ldots]_j \ldots\ [_{\mathrm{CP1}}\ \sout{[_{\mathrm{CorCP}}\ \mathrm{RelXP}\ldots]_j}\ [_{\mathrm{TopP}}\ \mathit{DemXP}_i\ [\sout{\mathit{DemXP}_i}\ \ldots\ ]]]$
(b) $[_{\mathrm{CP2}}\ [_{\mathrm{CorCP}}\ \mathrm{RelXP}\ldots]_j \ldots\ [_{\mathrm{CP1}}\ \sout{[_{\mathrm{CorCP}}\ \mathrm{RelXP}\ldots]_j}\ [_{\mathrm{FocP}}\ \textsc{DemXP}_i\ [\sout{\mathit{DemXP}_i}\ \ldots\ ]]]$

3.4. Summary and conclusion: the fine structure of correlativization in Hungarian

In the previous sections I presented data illustrating locality effects found with correlatives. First, in section **3.3.1**, I looked at patterns in which correlative and DemXP are found in the same clause, but in a higher clause than they belong to. Locality effects in these cases are characteristic of topicalization in case the DemXP occupies a topic position, and characteristic of focusing in case DemXP occupies focus, suggesting that DemXP undergoes topic or focus movement in these. The CorCPs themselves were shown not to move in these constructions:

(79) (a) $[_{\mathrm{CP2}}\ [_{\mathrm{CorCP}}\ \mathrm{RelXP}\ldots]\ [_{\mathrm{TopP}}\ \mathit{DemXP}_i\quad [_{\mathrm{CP1}}\ \sout{\mathit{DemXP}_i}\ \ldots]]]$
(b) $[_{\mathrm{CP2}}\ [_{\mathrm{CorCP}}\ \mathrm{RelXP}\ldots]\ [_{\mathrm{FocP}}\ \textsc{DemXP}_i\quad [_{\mathrm{CP1}}\ \sout{\mathit{DemXP}_i}\ \ldots]]]$

Second, in section **3.3.2**, I looked at patterns in which CorCP and DemXP are found in adjacent clauses, with CorCP dislocated from its base clause. These display locality effects that are characteristic of **topicalization**, regardless of what position DemXP occupies in the lower clause. This unambiguously argues for long topic fronting of the CorCP itself. Next to this, overt movement of DemXP takes place in the base clause to the by now familiar topic or focus positions again:

(80) (a) $[_{\mathrm{CP2}}\ [_{\mathrm{CorCP}}\ \mathrm{RelXP}\ldots]_j \ldots\ [_{\mathrm{CP1}}\ \sout{[_{\mathrm{CorCP}}\ \mathrm{RelXP}\ldots]_j}\ [_{\mathrm{TopP}}\ \mathit{DemXP}_i\ [\sout{\mathit{DemXP}_i}\ \ldots\ ]]]$
(b) $[_{\mathrm{CP2}}\ [_{\mathrm{CorCP}}\ \mathrm{RelXP}\ldots]_j \ldots\ [_{\mathrm{CP1}}\ \sout{[_{\mathrm{CorCP}}\ \mathrm{RelXP}\ldots]_j}\ [_{\mathrm{FocP}}\ \textsc{DemXP}_i\ [\sout{\mathit{DemXP}_i}\ \ldots\ ]]]$

The most important novelty of these representations concern the nature and location of correlative clauses. According to the testimony of the first

set of locality data (summarized in (79)), correlative clauses do not undergo movement when they are found in the same clause as their DemXP. This was found to be true for simple sentences where correlatives are base-generated in the left periphery (see section **2** above for arguments), and it is also true in complex sentences in which both CorCP and DemXP appear higher than their base clause, but in the same clause nevertheless. The second set of locality data on the other hand (summarized in 80) provided clear evidence that correlative clauses can move on their own and leave traces (copies) behind, in a movement that shows characteristics of **topicalization**. This happens when they are dislocated from their base clause which contains their DemXP. In other words, whenever CorCP and DemXP are not in the same clause, the correlative clause has moved.

The baseline is, correlatives are **mobile** constituents in Hungarian, which can undergo (optional) topicalization. If their DemXP does not leave the base clause, the correlative has to be merged in this clause as well, and can optionally undergo further movement later. If DemXP is found in a superordinate clause dislocated from its base, the correlative has no option but be base-generated in the same superordinate clause, too. These placement options can be captured by the following simple rule:

(81) Correlative clauses in Hungarian are base-generated in the clause where their DemXP appears on the surface.

This rules out another a priori possible scenario that we did not discuss so far: the correlative can never be found in a lower clause than its DemXP, as shown schematically in (82) and illustrated with a real life example in (83):

(82) *[$_{\text{CP2}}$ DemXP$_i$ (...) [$_{\text{CP1}}$ [$_{\text{CorCP}}$ RelXP...] [~~*DemXP*~~$_i$ ...]]] (unattested)

(83) *Azokat$_i$ Péter hallotta, hogy [$_{\text{CorCP}}$ akik korán jönnek],
that.pl.acc Péter heard that rel.who.pl early come
ingyen beengedik t_i.
free pv.admit.3pl
lit. 'Who come early, Péter heard that they will be admitted for free.'

(83) is ungrammatical as it does not conform to (81): the correlative appears in the base sentence, while DemXP is moved out of there.

The correct account of Hungarian correlativization is then what can be dubbed the **high-adjunction & optional CorCP-movement** account, summarized in (A-4) below:

(A-4) **High-adjunction & optional CorCP-movement account**

The correlative is base-generated in the left periphery of the clause in which DemXP is found in overt syntax, and optionally moves out of there via topicalization; DemXP obligatorily undergoes movement to at least the lowest topic/focus position (see (84)).

(84) $[_{\text{CP2}}\ ([_{\text{CorCP}}\ ]_j)\ [_{\text{TopP/FocP}}\ (Dem_i)\quad [_{\text{CP1}}\ [_{\text{CorCP}}\ ]_j \ldots\ [_{\text{TopP/FocP}}\ (Dem_i)\ [\ \ldots\ t_i\ \ldots\ ]]]]]$

Now we are in position to compare the behaviour of Hungarian correlatives with Hindi ones. Recall that according to the extant approach to Hindi (Bhatt 2003), summarized in (A-2) in section 3.1, CorCP and DemXP always start out in the same clause in this language, in a **local** configuration to each other, formed by adjunction. The need for local modification follows from an economy requirement dubbed **"local merge"** (Bhatt 2003): if a language **can** merge correlatives immediately with the DP they modify, it **has** to, this being the most local option available. In Hungarian, however, there is no evidence for local merge: CorCP and DemXP arguably do not form a constituent at any level. Why is Hungarian not as economical as Hindi when it comes to local merge?

It has to be recognized that although this seems to be the obvious question to ask, the question cannot be asked this way. The two languages cannot be compared on grounds of economy, due to the fact that correlatives in Hindi and Hungarian are employed in different strategies. Hungarian correlatives only occur in a left peripheral discourse strategy, while Hindi correlatives are not a left peripheral strategy at all. As the next section will show, the picture of Hungarian correlativization we have arrived at here is parallel to other **left dislocation** constructions in Hungarian. Since they instantiate a discourse configurational strategy of left dislocation, Hungarian correlatives comply with (81) and (A-4/(84)). In this they differ from Hindi, which employs correlativization in non-dislocation strategies as well. Since Hindi and Hungarian use correlatives in different domains, the fact that they do not share the exact same syntax does not come as a surprise.

Before turning to the discourse nature of Hungarian correlatives in section **4**, we need to return to the last issue of locality effects: reconstruction.

3.5. Reconstruction effects once again

As section **3.2** has shown, binding data in simplex clauses unambiguously show that correlative clauses do not reconstruct to lower positions within a simplex sentence in Hungarian. Pronominal binding indicates lack of reconstruction, too. In the following examples, the relative pronominal cannot be bound by the matrix clause subject:

(85) [$_{\text{CorCP}}$ Amelyik lány megcsókolta pro$_{\text{obj},i}$], abban minden fiú$*_i$ megbízik.
rel.which girl kissed that.in every boy trusts
'Every boy$_i$ trusts the girl who kissed him$_i$.'

This is fully consonant with the idea that correlatives are merged at the left periphery in their base-clause, and thus do not show reconstruction to lower positions.

Having seen in the previous section that there are cases where correlatives reach their surface position by topic movement, we expect that reconstruction effects show up in these long distance correlativization cases. Note that DP-topicalization in Hungarian **does** exhibit reconstruction effects in both simple and complex clauses (contra É. Kiss 1992):

(86) (a) [Alex$_i$ könyvét] TEGNAP nem pro$*_i$ olvasta.
Alex book.poss.3sg.acc yesterday not read
'Alex$_j$'s book, it was yesterday that he$_i$ did not read.'

(b) [Alex$_i$ könyvét] pro$*_i$ azt hitte, nem olvasta Péter.
Alex book.poss.3sg.acc that.acc believed not read Péter
'Alex$_j$'s book, he$_i$ believed Péter did not read.'

The topicalized object *Alex könyvét* 'Alex book.poss.3sg.acc' contains an R-expression, which cannot be coindexed with the pro subject in either example, indicating that reconstruction took the topicalized object back to a position where it is c-commanded by the subject. While topics behave this way, our expectation that dislocated correlatives show similar reconstruction effects is **not** borne out though. Consider the following example, in which the correlative and DemXP are found in non-adjacent clauses, the configuration in which the correlative was found to have raised in overt syntax:

(87) ?[$_{\text{CorCP}}$ Akit kedvel Mari$_i$], úgy gondolja pro$_i$, hogy *azt$_i$* más is kedveli.
rel.who.acc likes Mari so thinks that that.acc other also likes
lit. 'Who Mari likes, she thinks that other people also like him/her.'

The available coreference between the subject of the matrix clause and *Mari* embedded inside the correlative shows that the relative does not reconstruct back into the position adjoined to the embedded CP, from which it supposedly originates, at least according to the testimony of locality effects reviewed above.

Do these facts contradict the findings of the previous sections? Fortunately not, or at least not necessarily. Lack of reconstruction seems to characterize **any relative clause** that appears in the left periphery of Hungarian, including those that are headed relatives. Observe the following example:

(88) A legutóbbi könyvet [$_{RC}$ amit Alex$_i$ írt],
the last book.acc rel.what.acc Alex wrote
azt pro$_i$ nem olvasta még újra.
that.acc not read yet again
'The book Alex wrote last, he has not read again yet.'

The DP containing a relative clause does not reconstruct back into any lower position, which results in the fact that the R-expression within the relative can be freely coindexed with the *pro* subject of the main clause. Following Lebeaux (1998) in explaining this behaviour of headed relatives by assuming (postcyclic) merger of relative clauses, we can account for the similar behaviour of correlative clauses by saying that correlatives are also late-merged, although not to a nominal (as they are not adjoined to one), but to the CP they occur in. It is important to observe that correlatives also parallel the behaviour of other adjunct clauses that similarly fail to reconstruct from the left periphery. The following examples show that purpose adjunct clauses do not reconstruct, either; neither in simple clauses (cf. (89), from Kenesei 1994) nor in complex ones (cf. (90)):

(89) [Hogy Alex$_i$ el ne fáradjon], pro$_i$ leült.
that Alex pv not tire.subj.3sg pv.sat
'So that he should not get tired, Alex sat down.'

(90) [Hogy Alex$_i$ el ne fáradjon], elhatározta pro$_i$, hogy sokat fog pihenni.
that Alex pv not tire.subj.3sg decided that much.acc will rest.inf
'So that he should not get tired, Alex decided that he would rest a lot.'

In the domain of reconstruction effects, correlatives pattern with other clausal adjuncts in the left periphery.

4. The role of topicalization

With the basic structure of Hungarian correlativization in place, this last section turns to further issues concerning the nature of correlative clauses: their interpretation and discourse function. As we will see, this will reinforce the results of the previous section.

The most important finding of the previous section was that correlative clauses are mobile constituents: they can undergo topicalization, a movement characteristic of topical constituents. Since topicalization is a discourse driven movement, we expect that the topic syntax of correlatives is coupled with topic interpretation as well. It will be shown that this is indeed the case: correlatives **are** a kind of topic constituent, **simplifying left dislocates**. This is a nice result, as it shows that the topic syntax and the topic semantics of correlatives go hand in hand, as expected.

4.1. The discourse role of correlatives: topicality

It is easy to see that correlatives are sentence topics under the definition of **aboutness** topics: elements that the sentence (or more precisely the comment part of the sentence) is about (Reinhart 1981).[17] It does not matter where DemXP is found, in a topic or a focus position, the meaning of the correlative is the same in both cases, as the following examples illustrate:

(91) [$_{\text{CorCP}}$ Aki korán jön], *azt* ingyen beengedik.
rel.who early comes that.acc free pv.admit.3pl
lit. 'Who comes early, they are admitted for free.' = 'As for people who come early, they are admitted for free.'

(92) [$_{\text{CorCP}}$ Aki korán jön], *AZT* engedik be ingyen.
rel.who early comes that.acc admit.3pl pv free
lit. 'Who comes early, it is them who are admitted for free.' = 'As for people who come early, it is them who are admitted for free.'

[17] The topic discourse role of correlatives is an assumption that forms the starting point of the semantic discussion in Bittner (2001). This paper actually defines correlatives as "biclausal topic-comment structures [...] in which the dependent clause introduces one or more topical referents to be commented on by the matrix clause, where each topical referent must be picked up by—correlated with—an anaphoric proform", without any syntactic argumentation to this effect.

These sentences are about people who came early, about whom we predicate that they were admitted for free. The correlative in both cases functions as an aboutness topic.

When characterizing correlatives as aboutness topics, it needs to be kept in mind that **aboutness** topics are not the same as **frame-setting** topics, although both these types often translate into 'as for' topics in English. Correlatives cannot be frame-setting topics. The relation between an aboutness topic and the rest of the sentence is stronger than that between a frame-setting topic and its clause (as pointed out by Dayal 1996), the latter illustrated in (93):

(93) As for fish, I like cod.

Correlatives cannot express such relations due to the fact that the main clause must host a demonstrative pronominal correlate that refers back to the correlative. Frame-setting topics are not compatible with such backward reference.

Aboutness topics need not carry old information (Reinhart 1981). This is exactly the same with correlatives. Correlatives certainly **can** convey old information: (91), for example, can be foregrounded in the conversation if people who arrive late are previously mentioned. However, this is not necessarily the case. Correlatives can also be **shifting** topics, i.e., those that carry discourse-new information. Consider for example the following conversation about a concert:

(94) (a) Where did you get tickets for the concert? (question)

(b) [$_{\text{CorCP}}$ Aki korán ment], *azt* ingyen beengedték.
rel.who early went that.acc free pv.admitted.3pl
lit. 'Who came early, they were admitted for free.' (answer)

In this case the correlative does not provide old information, as people who came early for the concert are not mentioned in the discourse before.

Aboutness topic interpretation is the interpretation that characterizes **topics** and **left dislocated constituents** in Hungarian, both of which are left peripheral constituents, forming the subject(s) of the main predication of the clause (É. Kiss 1987; 1992). Syntactically, topics occur to the left of other material in their clause, following the complementizer if there is one (É. Kiss 1987), while left dislocated items are unique and are found to the immediate right of topics (Molnár 1998). The syntactic position of these elements is highlighted in the following structure:

(95) [CP **[TopP* topics** **[LDP left dislocate** [FocP [. . .]]]

Since correlatives also occupy a clause-initial position as we have seen in section **3**, it seems logical to conclude that the position they occupy is in fact that of Spec,TopP, and can be captured by the following two structures: (96a) shows the configuration where DemXP is a topic itself, and (96b) shows one where DemXP is focus.

(96) (a) [TopP [CorCP] (. . .) [TopP *DemXP*$_i$ [. . . t_i . . .]]]
correlatives with a topicalized DemXP

(b) [TopP [CorCP] (. . .) [FocP *DEMXP*$_i$ [. . . t_i . . .]]]
correlatives with a focused DemXP

While such structures are at first sight compatible with the word order facts we observed before, there is strong evidence **against** treating correlative clauses as topics and placing them in Spec,TopP. This evidence comes from the distribution of non-nominal correlatives. To see what this consists of, first some discussion of the properties of topics is in order.

Hungarian topics can only be referential constituents (É. Kiss 1987). Predicative adjectives or degree phrases for example cannot be topics, as illustrated in (97) and (98):

(97) *Magas A FELADATHOZ volt Péter.
tall the task.for was Péter
'It was the task that Péter was tall for.'

(98) *Gyorsan ANNA aludt el.
quickly Anna slept pv
'It was Anna who fell asleep quickly.'

(97) involves the predicate *magas* 'tall' in topic position. The presence of focus in the sentence is only to insure that the position of this item is that of a topic (recall the structure in (36) or (95)). (98) shows the same phenomenon with an adverb, *gyorsan* 'quickly'. This item cannot be topicalized, just like the predicate in (97). The moral of (97) and (98) is that non-referential phrases are systematically excluded from topic positions.[18]

[18] (97) and (98) are grammatical when they are pronounced with rising contrastive intonation on the predicative adjective/adverb. This contour is characteristic

Exactly parallel to these items, predicative and adverbial correlatives (i.e., correlatives formed with predicative and adverbial relative pronouns) **cannot** take part in a structure in which their DemXP is a topic. Consider (99a,b):

(99) (a) *[$_{\text{CorCP}}$ Amilyen Péter], *olyan* MARI.
rel.how Péter such Mari
lit. 'What(ever) Péter is like, Mari is such (and not Katalin).'

(b) *[$_{\text{CorCP}}$ Amilyen gyorsan elaludt], *olyan gyorsan* ANNA készült el.
rel.how quickly pv.sleep so quickly Anna prepared pv
lit. 'Just as quickly as Anna fell asleep, it was Anna who got ready that quickly.'

Arguably, the ungrammaticality of these examples is due to the fact that DemXP, a non-referential item is found in the topic position. Both examples are constructed such that *olyan* and *olyan gyorsan* can only receive a topic reading: this is forced by the focus on *Mari* in (99a) and *Anna* in (99b). As a result, exactly parallel to (97) and (98), these sentences are out, due to the fact that the non-referential DemXPs cannot function as topics.

Nevertheless, if we turn to the other possible pattern of correlativization, we can notice that correlatives themselves are not ruled out occurring in sentence initial position. They are perfectly fine there if (and only if) their DemXP is found in the focus position:

(100)(a) [$_{\text{CorCP}}$ Amilyen Péter], *OLYAN* Mari is.
rel.how Péter such Mari also
lit. 'What(ever) Péter is like, it is like that that Mari is, too.'

(b) [$_{\text{CorCP}}$ Amilyen gyorsan elaludt], *OLYAN* GYORSAN készült el Anna.
rel.how quickly pv.slept such quickly prepared pv Anna
lit. 'As quickly as Anna fell asleep, it was so quickly that she got ready.'

Since focus can operate on both referential and non-referential items, the non-referentiality of *olyan* here does not cause ungrammaticality, and the sentences are grammatical. Now given that the correlatives themselves in (100) are also non-referential entities (just like the DemXP they associate with), if they were to occupy a topic position, they should make

of left dislocation, a strategy which is distinct from topicalization, as will be demonstrated in section **4.2** below.

these sentences ungrammatical, too. The fact that correlatives are **not** ungrammatical in (100) suggests that they do **not** occupy topic positions.

Our conclusion therefore has to be that the position correlatives occupy is not the regular Spec,TopP position dedicated to topic constituents. This suggests that correlatives are another type of topical constituent.

As briefly mentioned in passing, Hungarian also has another topic type: left dislocated items, and it is reasonable to assume that this is the type of topic correlatives instantiate. Correlatives are left dislocated constituents and their role is what Prince (1998) refers to as **simplifying left dislocations**. Simplifying left dislocation is a left dislocation construction in which the left dislocated element simplifies the processing of entities occurring in the lower structure of the clause. Prince (1998) defines the simplifying role of left dislocation in the processing of discourse-new entities in the following way:

(101) "[simplifying left dislocation] [. . .] serves to simplify the discourse processing of discourse-new entities by removing the NPs evoking them from a syntactic position disfavoured for NPs evoking discourse-new entities and creating a separate processing unit for them. Once that unit is processed and they have become discourse-old, [. . .] the pronouns which represent them, may comfortably occur in their canonical positions within the clause"

The role of such left dislocated elements is to "lift the burden off" the sentence-internal left periphery by placing new information into a separate discourse unit in the higher left periphery. Consider the following illustration from Manetta (2007), from English:

(102) We went to Florida last summer, and we went to Disney World. The best ride the whole time was Jurassic Park. It was so scary. My sister Chrissie, her eyes were poppin' out.

My sister Chrissie provides new information, followed by the resumptive *her (eyes)*, which due to the presence of *my sister Chrissie* qualifies as old information and can occur as an old-information topic.

The above notion of simplifying left dislocation fits correlatives like a glove. Simplifying left dislocates, like any dislocated elements, are sentence initial **aboutness** topics, which can carry new information, just like correlatives. Therefore it is possible to analyze correlatives in terms of the discourse structure of simplifying left dislocation:

(103) [Simpl.LD**=new** [CorCP RelXP. . .] [TopP [***old*** *DemXP*] [. . .]]]

While Prince only deals with new information "simplifiers", I believe the notion can be extended to other kinds of simplifying processes, and other kinds of left peripheral elements as well. One extension I want to propose, specifically for correlatives with focused DemXPs, is simplifying in **phonology**.

Kenesei and Vogel (1989) show that clausal material is in general excluded from the Hungarian focus position due to the fact that focus stress cannot distribute over a whole clause. Although free relatives can occur in focus positions, they are much better on the periphery of clauses. Simplex DPs in the focus position on the other hand pose no problem for phonology.

With this idea in mind it is possible to analyze correlatives as items that simplify the **pronunciation** of sentences with focus on relative clause material. They spell out the content of the relative to the left of the clause and leave Spec,FocP over to a single phonological word, DemXP:

(104) [Simpl.LD [CorCP RelXP. . .] [FocP [*DemXP*] [. . .]]]

Concerning the properties of discourse it then seems advantageous to analyze correlatives as dislocated clauses that have a simplifying role, and which are aboutness topics. The simplifying role of correlatives can be multifold: it can be relevant for the processing of old/new information or can ease the PF spell out of the structure, or both at the same time. There could even be further, yet undiscovered simplifying roles that correlatives can have. In order to arrive at the most restrictive theory, I propose to treat **all** occurrences of correlatives as those taking part in a simplifying discourse structure and assign them the discourse structure in (105):

(105) **The discourse structure of correlatives**
[Simpl.LD [CorCP RelXP. . .] [TopP/FocP [*DemXP*] [. . .]]]

Reasons to treat all correlatives alike come primarily from the observation that **syntactically** there does not seem to be a difference between correlatives of various types. Regardless of what kind of simplifying role they have, in the syntax they come out the same. It could be possible that the syntactic structure that underlies the discourse structure in (105) is available even in cases where the correlative simplifies vacuously.

4.2. Back to the syntax: correlativization as left dislocation?

The preceding section showed that the discourse role of correlatives is that of aboutness topics with the role of simplifying the processing or pronunciation of the preverbal left periphery, just like some left dislocated constructions. The question is, do correlatives have the syntax of left dislocation, too? If they do, correlativization in fact can be reduced to an existing construction, and thus eliminated from the grammar of Hungarian as a distinct phenomenon. While this would be a welcome result, the conclusion of this section will be that the syntax of correlatives and the syntax of left dislocation are only partly the same.

Before turning to the details of a close syntactic comparison between left dislocation and correlatives, a brief introduction to left dislocation in Hungarian is in order (see also É. Kiss 1987; Molnár 1998; Gécseg 2001). Left dislocation in Hungarian is a topic construction which is marked by syntactic and phonological means. Syntactically, left dislocation uses a resumptive element, the distal demonstrative pronoun *az* 'that', which agrees in number and case with the left dislocated constituent. When the left dislocated item is human, some speakers can also use the personal pronoun *ő* 'he/she' as resumptive, but this element is losing ground to demonstratives in present-day Hungarian. A typical instance of left dislocation is illustrated in (106) or (107):

(106) Ma √Pétert *azt* / %*őt* INGYEN beengedik.
today Péter.acc that.acc 3sg.acc free pv.admit.3pl
lit. 'Today, Péter, he is admitted for free. (While other people might not be.)'

(107) √Pétert *azt* mindenki beengedi.
Péter.acc that.acc everyone pv.admit.3sg
lit. 'Péter, everybody admits him. (While other people might not be admitted.)'

As the translation indicates, left-dislocated elements can imply contrast. Contrast implies the existence of a contrast set, an element of which is named by the left dislocated item. The phonological reflex of contrast is rising intonation on the dislocated item, followed by a short pause (marked by √). Next to this intonation surplus, sentences with contrastive left dislocation need to contain an operator element, which is the focused constituent in (106) and the quantifier in (107). For more on the latter property, see É. Kiss–Gyuris (2003).

In spontaneous oral discourse, left dislocation sometimes occurs without the above mentioned contrastive reading and contrastive intonation. These non-contrastive left-dislocated phrases are used to mark a new information unit, akin to simplifying left dislocation introduced in the previous section:

(108) Erre Péter *az* fogta magát és elszaladt.
then Péter that took himself.acc and pv.ran
lit. 'Then Péter, he went and ran away.'

Péter introduces the new discourse unit which is referred back to by the demonstrative resumptive element *az* 'that'. When comparing correlatives to left dislocation in the next section, it is going to be this type of non-contrastive, simplifying left dislocation that we will use for comparison, since they are closer in meaning to correlatives than contrastive left dislocates. The idiomatic expression *fogta magát* (lit. took himself) 'went and . . . ' will be used to indicate colloquial register.

4.2.1. Similarities between left dislocation and correlativization

The most striking similarity between correlativization and left dislocation is the presence of resumptive elements in both. Left dislocation as mentioned above makes use of a demonstrative resumptive element just as correlatives do. Next to this lexical parallel, left dislocation and correlativization pattern alike in the following properties: (i) uniqueness; (ii) embeddability; (iii) locality effects across clauses.

(i) *Uniqueness.* Both left dislocates and correlatives are unique constituents within their clause (although left dislocation sounds somewhat less bad when multiplied):

(109) ?*A koncertre *arra* Péter *az* fogta magát és bement.
the concert.to that.to Péter that took himself and entered
lit. 'The concert, Péter, he went and entered it.'

(110) *[$_{\text{CorCP}}$ Aki korán jön] *azt* [$_{\text{CorCP}}$ amikor megérkezik]
el.who early comes that rel.when arrives
akkor ingyen beengedik.
then free pv.admit.3pl
lit. 'Who comes early, when he arrives, he is admitted for free then.'

(ii) *Embeddability.* The other property that correlatives and left dislocates share is that both can be freely embedded in a *that*-clause (cf. (111) and (112)).

(111) Azt mondják, hogy Péter *az* fogta magát és bement.
that say.3pl that Péter that took himself and entered
lit. 'They say that Péter, he went and entered without a thing.'

(112) Péter hallotta, hogy [$_{\text{CorCP}}$ aki korán jön], *azt* ingyen beengedik.
Péter heard that rel.who early comes that.acc free pv.admit.3pl
lit. 'Péter heard that who comes early, they admit him for free.'

Embedding in a relative clause gives slightly less well-formed results (cf. (113) and (114)):

(113) ?Nyolckor kezdődött a koncert, amire Péter,
eight.at started the concert rel.what.to Péter
az fogta magát és bement.
that took himself.acc and entered
lit. 'The concert, to which, Péter, he went and entered started at eight.'

(114) ?Nyolckor kezdődik a koncert, amire [$_{\text{CorCP}}$ aki korán jön],
eight.AT starts the concert rel.what.to rel.who early comes
azt ingyen beengedik.
that.acc free pv.admit.3pl
lit. 'The concert starts at eight, to which, who comes early, they admit him for free.'

(iii) *Locality.* Another parallelism between correlatives and left dislocation can be found in locality properties. It turns out that long distance locality effects found with correlatives fully carry over to locality effects with left dislocated constituents. That is, we can replace the correlative with a left dislocated item in the examples in sections **3.3.1** and **3.3.2**, we get the exact same grammaticality judgements. To illustrate the most relevant of these, consider examples (51) and (53), which are repeated here with left dislocates as (115) and (116), as well as examples (65) and (67), repeated here as (117) and (118):

(115) [$_{\text{LD}}$ A fiúkat], *azokat*$_i$ Péter hallotta, hogy ingyen beengedik t_i.
the boy.pl.acc that.pl.acc Péter heard that free pv.admit.3pl
lit. 'The boys, Péter heard that they will be admitted for free.'

(116) *[LD A fiúkat], *azokat*$_i$ Péter hallotta **a hírt**, hogy ingyen beengedik t_i.
the boy.pl.acc that.pl.acc Péter heard the news that free pv.admit.3pl
lit. 'The boys, Péter heard that they will be admitted for free.'

(117) ?[LD A fiúkat], Péter hallotta, hogy *azokat* ingyen beengedik.
the boy.pl.acc Péter heard that that.pl.acc free pv.admit.3pl
lit. 'The boys, Péter heard that they are admitted for free.'

(118) *[LD A fiúkat], Péter hallotta **a hírt**, hogy *azokat* ingyen beengedik.
the boy.pl.acc Péter heard the news that that.pl.acc free pv.admit.3pl
lit. 'The boys, Péter heard that they are admitted for free.'

(115) and (116) illustrate the case in which dislocated item and resumptive appear outside the clause they originate in. The grammaticality contrast between (115) and (116) illustrates that long distance left dislocation is sensitive to islands, which follows from the movement of the resumptive demonstrative phrase. The type of movement this demonstrative undergoes is topicalization, which can be seen from the fact that its target position is that of topic, and not that of a focus.[19] Further, the fact that (115) in which only a finite clause is crossed, is fully grammatical, suggests that only the resumptive element undergoes movement, parallel to DemXP with correlatives.

(117) and (118) illustrate what happens if the left dislocated item and the resumptive are not in the same clause. In this case, if there is a finite clause barrier between the two, the sentence is grammatical, modulo the slight dispreference as a result of non-adjacency between the left dislocated item and its demonstrative.[20] If an island intervenes, we get full ungrammaticality, which indicates the movement of the left dislocated item to the higher clause. That this movement is topicalization can be furthermore shown by an example parallel to (69). Presentational CNPs, which were shown to be topic filters, let such a movement through:

(119) ?[LD A fiúkat], volt **koncert**, [RC amire *azokat* ingyen beengedték].
the boy.pl.acc was concert rel.what.to that.pl.acc fee pv.admitted.3pl
lit. 'The boys, there were concerts where they were admitted for free.'

[19] As we will see in section **4.2.2** below in example (127), the resumptive element in left dislocation cannot, for the majority of speakers, occupy focus position in any context. It can only occupy a topic position.

[20] Recall the same effect with correlatives in examples (33) and (65)–(70) above. This is yet another parallelism between correlatives and left dislocation.

Summarizing the above findings, it seems that left dislocated items can undergo (optional) topicalization. If their resumptive does not leave the base clause, the left dislocated element is generated in this clause as well. If the resumptive raises, the left dislocated phrase is generated in the clause where the resumptive surfaces. These movement options are shown in (120).

(120) (a) $[_{\text{CP2}}\ [_{\text{LD}}\ \text{XP}]\ [_{\text{TopP}}\ \textit{DemXP}_i\ [_{\text{CP1}}\ \sout{\textit{DemXP}_i}\ \ [\ldots]\ ]]$
(b) $[_{\text{CP2}}\ [_{\text{LD}}\ \text{XP}]_j\ (\ldots)\ \ [_{\text{CP1}}\ \sout{[_{\text{LD}}\ \text{XP}\ldots]_j}\ [_{\text{TopP}}\ \textit{DemXP}_i\ [\sout{\textit{DemXP}_i}\ [\ldots]\ ]]]$

The attentive reader has already noticed that these movement steps are the same as the movement steps found with correlativization where DemXP moves to a topic position. In a fully parallel fashion, the option of moving a resumptive element higher than the left dislocated item is an unattested example with left dislocation, just as it was with correlativization:

(120) (c) $*[_{\text{CP2}}\ \text{DemXP}_i\ (\ldots)\ [_{\text{CP1}}\ [_{\text{LD}}\ \text{XP}]\ [\sout{\textit{DemXP}_i}\ [\ldots]]]$

(121) **Azokat*$_i$ Péter hallotta, hogy [$_{\text{LD}}$ a fiúkat], ingyen beengedik t_i.
that.pl.acc Péter heard that the boy.pl.acc free pv.admit.3pl
lit. 'The boys, Péter heard that they will be admitted for free.'

Examples (115)–(121) then unambiguously argue that the placement options available to CorCP and DemXP across clauses is the same as the placement options of left dislocated items and their resumptive demonstrative phrases. Both constructions are constrained by the same set of locality conditions. These overarching parallels strengthen the claim put forth in the previous section that correlatives are a type of left dislocated constituents. Their syntactic placement options follow from this.

4.2.2. Differences between left dislocation and correlativization

While in many respects similar, the syntax of correlativization and left dislocation is not the same in every subtle respect. Differences are also noticable in some domains. These concern the following: (i) the precise placement; (ii) the obligatoriness of resumptive elements; (iii) the discourse role of resumptives/demonstratives and (iv) reconstruction effects in simple clauses. These will be illustrated in a row in this section.

(i) *Position in the clause.* Left dislocates can comfortably follow other, ordinary topics in the Hungarian clause (Molnár 1998), while cor-

relatives are preferably pronounced **before** other material, especially if the latter is lengthy. Compare the difference between left dislocation in (122), and correlativization in (123), repeated from (32a) above:

(122) A szervezők Pétert *azt* ingyen beengedik.
the organizers Péter that.acc free pv.admit.3pl
'The organizers admitted Péter for free.'

(123) ??A szervezők [$_{\text{CorCP}}$ aki korán jön] *azt* ingyen beengedik.
the organizers rel.who early comes that.acc free pv.admit.3pl
lit. 'Who comes early, the organizers will let him in for free.'

As mentioned in section **3.2**, this difference might be traced back to a difference in category in the two cases: correlatives are clausal while left dislocates are simplex phrases and thus require to be initial for reasons of prosody.

(ii) *Obligatoriness of the resumptive element.* The resumptive element we find with left dislocation is partly different from the demonstrative phrase of correlatives. First of all, correlatives can choose from a larger set of resumptive items. Both demonstrative pronouns and full demonstrative DPs are acceptable with correlatives (see section **2** above), while left dislocates can only have pronominal resumptives:

(124)(a) [$_{\text{CorCP}}$ Akivel Mari moziba jár], *az a fiú* telefonált.
rel.who.with Mari cinema.into goes that the boy called
lit. 'Who Mari goes to the cinema with, the boy called.'

(b) *Péter *az a fiú* fogta magát és bement.
Péter that the boy took himself and entered
lit. 'Péter, that boy went and entered.'

Furthermore, there are many striking differences between the DemXP we find with correlatives and the resumptives we find with left dislocates. First of all, the resumptive element is optional with left dislocates regardless of its case (both in simplifying and in contrastive left dislocation), but DemXP is obligatory with correlatives, unless it bears structural case (in which case it undergoes pro-drop). This property of left dislocation is illustrated in (125) and (126):[21]

[21] A shortcoming of this test is that in these examples, correlatives can only be compared to contrastive left dislocation. We cannot use non-contrastive left dis-

(125)(a) √Pétert, ingyen beengedik.
Péter.acc free pv.admit.3pl
lit. 'Péter, it is for free that he is admitted (while others have to pay.)'

(b) √Péternek, nem adtam jegyet.
Péter.dat not gave.1sg ticket.acc
lit. 'To Péter, I did not give him a ticket (while I did to someone else.)'

(126)(a) [$_{\text{CorCP}}$ Aki korán jön] INGYEN engedik be.
rel.who early comes free admit.3pl pv
lit. 'Who comes early, it is for free that the organizers will let him in.'

(b) [$_{\text{CorCP}}$ Akit bemutattál], *(*annak*) nem adtam jegyet.
rel.what.acc introduced.2sg that.dat not gave.1sg ticket.acc
lit. 'Who you introduced to me, I did not give a ticket to him.'

(iii) *Discourse functions.* DemXP with correlatives shows a greater flexibility not only when it comes to its positions but also when it comes to its discourse functions. As was shown in (36), DemXP can freely occur in the focus position. The same is never possible with the resumptives of left dislocates (127):

(127) *Péter, AZ fogta magát és ment be.
Péter that took himself and entered pv
lit. 'Péter, it was him who went and entered.'

In the case of left dislocation, the resumptive cannot assume any other discourse function and syntactic position than that of a topic for most speakers I consulted. As the previous section has shown in great detail, this is not the case with correlatives. Their DemXP item can either be a topic or a focus.

(iv) *Reconstruction.* Correlatives were shown not to reconstruct in either simple or complex clauses (see sections **3.2** and **3.5** above). Left dislocated elements on the other hand obligatorily do so in simple clauses, as shown by binding principle C effects in (128) and bound pronoun readings in (129):

(128) *Péter$_i$ könyvét, *azt* még nem pro$_i$ olvasta.
Péter book.poss.3sg.acc that.acc still not read.3sg
'Péter$_i$'s book, he$_i$ did not yet read.'

location as comparison because without a resumptive element, non-contrastive left dislocation becomes indistinguishable from simple topicalization.

(129) Az pro$_i$ apját, *azt* mindenki$_i$ szereti.
the father.poss.3sg.acc that.acc everyone love.3sg
'Everyone loves his father.'

These examples unambiguously show that at the level where binding relations are computed, the left-dislocated item does not occupy the left-peripheral position in which it surfaces in overt syntax. It has to be reconstructed to a lower position. This is in sharp contrast to the behaviour of correlatives, which do not show reconstruction effects in these contexts (see section **3.2)**. As section **3.5** has spelled out in more detail, however, this difference between left dislocated items and correlatives arguably follows from the difference in category in the two cases: correlatives are clausal (adjuncts) and it is due to their clausal nature that they do not reconstruct.[22]

4.2.3. Correlativization as left dislocation: summary of findings

The data covered in the previous two sections show that correlatives and left dislocates share many of their syntactic properties but not all. Similarities and dissimilarities are listed in Table 1.

As can be seen from the table, both left dislocates and correlatives can be embedded and can occupy a unique position in the left periphery. Both of them can be associated with a resumptive element, which can appear as a demonstrative pronominal (although in the case of correlatives, it does not have to be pronominal). This resumptive element is optional in the case of left dislocates and obligatory with correlatives. The resumptives of left dislocates cannot assume any position or logical function but that of topic. Correlatives on the other hand are free

[22] While left dislocated constituents reconstruct in simple clauses, in configurations where the left dislocated item was shown to be base-generated in a higher clause, reconstruction effects are missing:

(i) [$_{\text{LD}}$ Péter$_i$ könyveit], *azokat$_i$* pro$_i$ hallotta, hogy sokan olvassák t$_i$.
Péter book.poss.3sg.pl.acc that.pl.acc heard that many read.3pl
lit. 'Péter's books, he heard that many people read them.'

This example constrasts with (ii), where the left dislocated item was shown to overtly front to the matrix clause. In this case, coreference is harder to obtain, although judgements are admittedly very subtle:

(ii) [$_{\text{LD}}$ Péter$_i$ könyveit], pro$_{?*i}$ hallotta, hogy *azokat* sokan olvassák t$_i$.
Péter book.poss.3sg.pl.acc heard that that.pl.acc many read.3pl
lit. 'Péter's books, he heard that many people read them.'

Table 1
Syntactic properties of left-dislocated constituents and correlatives

Properties		Left dislocates	Correlatives
embeddability		✓	✓
maximally 1 per clause		✓	✓
reconstruction in simple clauses		obligatory	impossible
clause-initial position		optional	preferred
resumptive element	type	demonstrative	demonstrative/full DP
	obligatory	*	✓ (except nom/acc)
	focusable	*	✓
	across a CNPC island	*	*
	across a presentational NPC island	✓	✓

to have focused DemXPs. Unlike correlatives, which do not reconstruct, left-dislocated elements necessarily do.

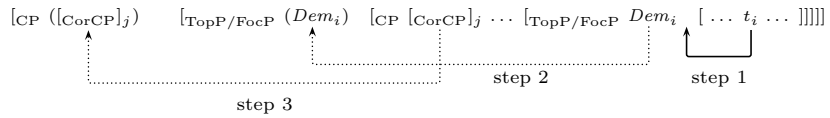
These differences between correlatives and left dislocated constituents clearly indicate that correlatives and ordinary left dislocated items differ from each other in some non-obvious ways. On the other hand, this section also demonstrated that there are many overarching similarities between correlatives and left dislocated constituents that necessitate the conclusion that correlativization is a left dislocation construction of a kind.

5. Summary of findings and a typological outlook

This paper took a close look at single correlatives in Hungarian and uncovered their structural and discourse properties.

Concerning syntax, many properties of correlatives point to the direction that correlativization in Hungarian is a kind of left dislocation strategy. Correlatives start out in the left periphery adjoined to the clause where their resumptive DemXP element is found in overt syntax. The DemXP starts out from its (VP-internal) base position and raises to topic or focus in the left periphery. As far as the surface position of the correlative clause itself is concerned, the most important finding of the present paper is that correlatives are mobile constituents. When in complex sentences, they can optionally undergo a movement that is characteristic of topic constituents, which is in line with their topical discourse role.

These observations, paired with observations that suggest that correlatives are not **ordinary topics**, resulted in the conclusion that they are **left dislocated constituents**. They can be optionally displaced from the edge of one clause to that of another. In (130) we summarize all movement steps that CorCP and DemXP can and must undertake. Straight lines indicate obligatory movements, and dotted lines indicate optional ones. Step 3 is dependent on step 2: step 3 can only take place if step 2 does not.

(130) 

In the movement steps observed Hungarian shows great resemblance to Hindi, where it is also the case that both CorCP and DemXP can be involved in movement. At the same time, there is a crucial difference between the syntax of Hindi and Hungarian correlatives: while Hindi correlatives are base-generated in the VP, Hungarian correlatives are not merged in the VP at all. They are base-generated in the highest left periphery. In addition to this, there are other syntactic differences between the two languages: (i) the optionality of the movement steps; (ii) the type of movement the correlative and DemXP undergo; (iii) the constituency of CorCP and DemXP at the time of merge (complex formation). In Hindi all movement steps, both by CorCP and DemXP are **optional** movements, while the movement of DemXP is strictly obligatory in Hungarian. The latter is clearly linked to the left dislocated nature of correlatives in Hungarian. Since correlativization only exists in this language as a discourse strategy of left dislocation, movement of DemXP into the left periphery is just as obligatory as in ordinary left dislocation constructions. The type of movements found in Hindi correlativization is **scrambling** (Bhatt 2003), an A-bar process. It is well known that scrambling is not totally unrelated to topicalization, as the two processes often show similar properties in languages. The third property, constituent formation in the base, clearly differentiates Hindi and Hungarian: while there is evidence for this in Hindi, we could find no indication for an initial representation in which CorCP and DemXP form a constituent in Hungarian.

Concerning discourse properties, Hungarian correlatives have the interpretation of aboutness topics. Section **4.1** showed that Hungarian correlativization is restricted to a particular discourse strategy, that of simplifying left dislocation, which is solely a left-periphery strategy in

Hungarian. As Hungarian only employs correlatives in this strategy, the syntax of Hungarian correlatives closely resembles other left dislocation constructions. In this, it differs from Hindi again, since Hindi correlativization is not restricted to a particular discourse strategy.

Our findings are thus relevant for the typology of relativization strategies in as much as they show that correlativization is not a uniform phenomenon. Discourse-related correlativization, the type we have identified in Hungarian, is not to be equated with Hindi correlativization, which is not a peripheral strategy. Interestingly, recent research on another Indo-Aryan language, Nepali, also revealed the existence of discourse-related correlativization: Anderson (2007a;b) argues that in Nepali correlatives are topical, too, and similarly to left dislocates express familiar topics, i.e., those that are salient in the discourse. The topic nature of correlative clauses has also been detected in Hittite and Lycian (Garrett 1994). In Lycian, one can even find morphological evidence for the topic status of correlatives, as both correlatives and ordinary topics are followed by the same marker *me* (see Garrett 1994 for specific examples).

Is it possible to correlate the existence of discourse-related correlativization with some other property of languages? On the basis of just Hindi and Hungarian, one could imagine that discourse-related correlativization is found in languages that are not (or no longer) OV-languages, like Hungarian. Such a hypothesis, however, would be difficult to maintain in the light of Nepali, an Indo-Aryan OV-language, which exhibits discourse-related correlativization, too, if Anderson is correct.[23]

[23] Another argument that OV-syntax does not necessarily predict Hindi-type, VP-internally merged correlatives comes from Northern Basque, another OV-language. As Rebuschi (2001; 2003; 2004) pointed out, Northern Basque shows a correlativization strategy that is altogether different from both that found in Hindi and that found in Hungarian. Northern Basque correlatives do not involve long distance movement, either by CorCP, or by DemXP. They exhibit no locality effects even in cases where the strongest of islands separate the two. The following complex DP island is perfectly grammatical in Northern Basque, unlike it is in Hindi or Hungarian (Lipták–Rebuschi 2009):

(i) [$_{\text{CorCP}}$ Nork ere huts egiten bait-du], ez dut ezagutzen
who-erg ever mistake doing C^0-aux neg aux know
[$_{\text{DP}}$ [*hura* zigortuko du]-**en gizona**].
that punish-pros aux-*en* man-sg
lit. 'Whoever makes a mistake, I do not know the man who will punish him.'

This suggests that CorCP in Northern Basque is base-generated in the left

It therefore seems more likely that the existence of discourse-related correlativization should be linked to the properties of the left periphery in individual languages. Specifically, and quite naturally, the availability of topical correlatives is expected to depend on the availability of left dislocation structures in general, and left dislocation of clausal material in particular. According to Chandra (2011), left dislocation is an existing strategy in Hindi, too, with properties similar to that of correlatives: left dislocation exhibits movement properties. More research is needed, however, to establish whether the optional scrambling movement of CorCP and DemXP can be conceived of as a left dislocation structure, and whether the left periphery of Hindi differs in relevant properties from that of Hungarian in this domain.

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periphery and not in the base, and CorCP and DemXP are not linked by movement.

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