ON THE DIACHRONIC DEVELOPMENT OF A HUNGARIAN DECLARATIVE COMPLEMENTISER

My paper investigates the diachronic development of the Hungarian complementiser *hogy* 'that', which in Modern Hungarian introduces finite declarative clauses. In Old Hungarian, *hogy* could be combined with other complementisers, e.g. *mint* 'than', giving configurations like *hogymint* and *minthogy*, i.e. having both the *hogy*+X and the reverse X+*hogy* order, X standing for an unspecified complementiser. The rich variation of Old Hungarian complex complementisers is not fully reflected in Modern Hungarian: it is invariably only one of the orders that survived. As to which order remained for a given pair *hogy*+X / X+*hogy*, I will show that it is always the one that was fully grammaticalized into a single C head, the possibility of which depends on the underlying order of *hogy* and X as separate C heads. I will also demonstrate that *hogy* in the period was used as a general marker of subordination in finite (sub)clauses.

1. THE THEORETICAL BACKGROUND

In the following, I will approach the questions outlined above from a generative perspective, using a minimalist framework. To facilitate the understanding of the core problem, let us first overview the relevant theoretical background.

In current generative grammar, the structure of a clause can be divided into a thematic layer, the VP (verb phrase) and a functional one, consisting of the TP (tense phrase) and the CP (complementiser phrase). The fact that all of these are referred to as layers indicates that all of them may contain several positions of the same type and hence there can be multiple verbs or complementisers in a single clause.

The structure of phrases can be represented using the following schema:
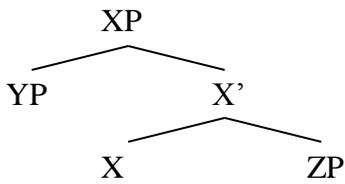
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          XP
        /    \
      YP      X'
             /  \
            X    ZP
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Figure 1

Disregarding now the exact mechanism of how syntactic structures are built up, the schema

given in *Figure 1* can be applied to any phrase XP. Every phrase has a head (X), which can

take a specifier (YP) and a complement (ZP). While the specifier and the complement are full

phrases, the head is not.

The CP layer of the clause is also built up of such XPs. The CP layer, also referred to as the

left periphery (or left edge) is the part of the clause containing the subordinating conjunctions

and various *wh*-elements in subclauses but is also present in main clauses as it is responsible

for defining the Force of the clause, i.e. whether it is declarative, interrogative etc. Following

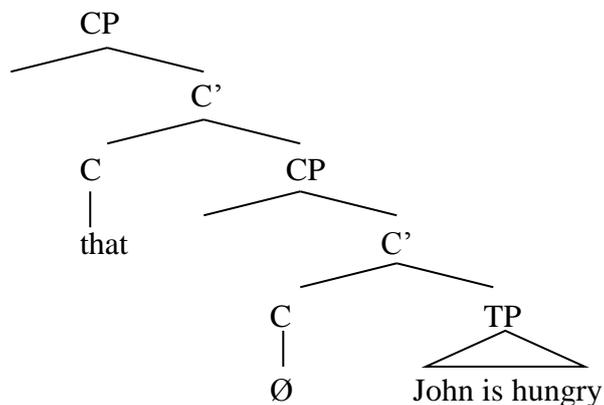Rizzi (1997), the structure of the left periphery contains two CPs:

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        CP
       /  \
          C'
         /  \
        C    CP
        |   /  \
      that      C'
              /    \
             C      TP
             |     /  \
             Ø   John is hungry
```

Figure 2

While the higher C head takes another CP in its complement position, the head of that lower

CP takes the rest of the clause (given here as TP, e.g. *John is hungry*) as its complement. One

type of elements introducing subordinate clauses is complementisers, which roughly

correspond to subordinating conjunctions, such as *that*, *if* or *than*. These may take either the

higher or the lower C head position: for instance, English *that*, as indicated in *Figure 2*, is a higher C head. While in some languages it is always only one of the C heads that is filled by a complementiser (e.g. Italian, cf. Rizzi 1997), in others it is possible for two complementisers to co-occur (e.g. Welsh, cf. Roberts 2005: 122).

The reason why there are two distinct C heads is, according to Rizzi (1997), that they have different functions. The lower C head is responsible for defining the finiteness of the clause: while finite clauses contain a tensed verb (e.g. *John is hungry* is a finite clause), non-finite ones do not (e.g. the clause *to go to Berlin* is a non-finite one in a complex sentence such as *I want to go to Berlin*). Higher C heads, on the other hand, are responsible for defining the Force of the clause, i.e. whether it is declarative, interrogative, relative etc. Complementisers are base-generated in the C head position: this means that when the clause is constructed in a bottom-up fashion, they are inserted into this position. The operation responsible for combining any two syntactic elements is referred to as Merge: taking the example in *Figure 2*, Merge combines the TP (*John is hungry*) with the lower C head – ultimately to form the CP projection.

Besides complementisers, there are also (relative) operators that can introduce subordinate clauses. Consider the following examples (the symbol % in (1e) indicates that the sentence is only marginally acceptable):

(1)   a.   I don't remember **who** wrote the book.
      b.   I don't remember **what** he wrote.
      c.   I don't remember **which book** he wrote.
      d.   I don't remember **when** he left.
      e.   % John is taller than **what** Mary is. (Chomsky 1977: 87, ex. 51a)

The elements given in boldface in (1) are all relative operators. They are syntactically different from complementisers in several respects. First, they are phrase-sized constituents,

as is clearly indicated by (1c), where the determiner *which* takes a lexical (nominal) complement (*book*). Second, they also function as arguments or adjuncts in the clause that they introduce: *who* in (1a) is a subject, *what* and *which book* in (1b) and (1c) are objects, *when* in (1d) is a time adverb (hence an adjunct), while *what* in (1e) is a nominal predicate. Since operators are phrase-sized, they cannot be C heads: instead, they occupy the specifier position of a CP. In addition, they are not base-generated in the CP-domain as complementisers are but they are moved to this position via *wh*-movement (cf. Chomsky 1977: 87; Kennedy & Merchant 2000: 89–90). The notion of movement in generative grammar serves to relate two main functions that *wh*-elements fulfil: they establish semantic relationships within the clause just as their non-*wh* counterparts do but at the same time they also serve as elements introducing the subclause.

Taking the example in (1c), the *wh*-element *which book* is clearly the object of the verb (*wrote*). Objects normally follow the verb (e.g. *he wrote a book*): their base-position is within the lexical VP. Since *which book* in (1c) is an object, it is expected to be base-generated in the same position as *the book*. However, in (1c) it appears in a different position in the final structure, which is the same position where we find *wh*-elements in main clause questions too (e.g. *which book did he write?*).

Movement is a way to overcome the apparent contradiction of having an element in two positions: *which book* originates (i.e. is base-generated) in the VP but then it moves to the CP-domain, i.e. to the specifier position of the CP.

As to which CP will ultimately host the moved element, it has to be mentioned that languages may have different settings. Let us take the example in (1e), which is a comparative subclause: the presence of *what* is marked for most speakers of British English but is perfectly acceptable in certain American varieties, such as New England English. In any case, it

follows the complementiser *than*, which is located in the higher C head position: hence *what* must be in the specifier of the lower CP. The representation is shown in *Figure 3*:
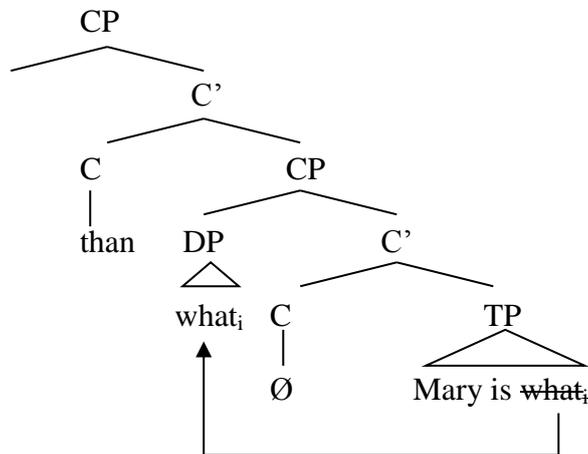

Figure 3

As can be seen, the *wh*-element is a DP (determiner phrase, a functional extension of the nominal expression) that originates in the TP but moves up to the specifier of the lower CP. There are thus two identical copies of *what*: however, only the upper one is pronounced – the lower one is deleted. The way the DP *what* is inserted into the structure for the second time is via Merge: hence in the case of movement, what happens is that an element is first merged into the structure in its base position, and subsequently it moves up to a different position to be merged into the structure again. Note that in this way it is far simpler to have complementisers in the CP-domain as they have to be merged only once – in this way, Merge is generally preferred over movement, cf. Chomsky (1995). However, the option of direct Merge would not be available for operators as they have others functions to fulfil within the TP domain (see above).

Of course, there would be several other theoretical issues to be investigated; however, what is important for the present discussion is that though both complementisers and operators may

introduce subordinate clauses, they take syntactically distinct positions and hence exhibit
different syntactic behaviour – moreover, they may also co-occur in a predictable way.
One of the most intriguing questions concerning the diachronic development of
complementisers and operators is precisely whether and to what extent are they related: in
other words, whether a given element that belongs to one category now used to belong to
another and if so, how the change between the two positions can be conditioned. As will be
shown in section 3, complementisers did indeed develop from operators; before turning to that
question, however, let us first consider the Hungarian data to be accounted for.

2. CHANGES IN HUNGARIAN DECLARATIVES – AN OVERVIEW

In Modern Hungarian, the complementiser *hogy* 'that' is responsible for introducing finite
declarative content clauses, in the same way *that* does in English. By contrast, in Old and
Middle Hungarian *hogy* had a wide range of functions: for instance, it appeared in
comparative or conditional clauses as well, while in Modern Hungarian there are separate
complementisers for these functions (i.e. *mint* 'than/as' and *ha* 'if', respectively).
Besides the functional change just mentioned, the issue of complex complementisers must
also be addressed. The notion of complex complementisers may denote a configuration when
there are two separate complementisers in a clause (hence both C heads are filled, cf. section
1) or that there is a single complementiser head that is morphologically complex, i.e. it is a
conglomerate of two once separate complementisers. Historically, there is a vast number of
complex complementisers in Hungarian but several of them have not survived into Modern
Hungarian, such as *hogymint* 'that than', while others still exist, such as *minthogy* 'than that'.
(Note that, for the sake of clarity, in translating complementiser combinations, I use a
morpheme-by-morpheme translation as providing merely the meaning of the whole
combination would result in a loss of grammatical information, e.g. both *mint* and *hogymint*

meant 'than/as' but for the argumentation to be pursued here, it is vital to see the morphological structure of such complexes.)

There are two main points of interest here: first, if a combination existed in a *hogy*+X order, X standing for another complementiser, then there was also an X+*hogy*, i.e. a reverse order combination (originally with the same meaning) and vice versa. Second, it is only one of the orders that survived: the other one invariably disappeared from the language before the Modern Hungarian period.

The possible combinations of complementisers are summarised in *Figure 4* (note that the combinations *hamint* 'if as' and *mintha* 'as if' are in parenthesis because they do not contain *hogy* that is under scrutiny here; nevertheless, the conform to the general system that is valid for the ones containing *hogy*):

	ha	hogy	mert	mint
ha	–	hahogy	–	(hamint)
hogy	hogyha	–	hogy mert	hogymint
mert	–	merthogy	–	–
mint	(mintha)	minthogy	–	–

Figure 4

As can be seen, any complementiser combination existed in both possible orders: however, it is only one of them that survived (the ones highlighted in *Figure 4*).

Apart from combinations with other complementisers, *hogy* also appeared in relative clauses: co-occurrences with ordinary relative operators such as *ki* 'who' and *mi* 'what' were relatively

frequent in Old and in Middle Hungarian, resulting in sequences such as *hogyki* 'that who' and *hogymi* 'that what'.

In the following, I will try to account for all these phenomena, namely: how the functional changes concerning *hogy* can be explained and how its co-occurrences with other elements in the CP-domain are conditioned. All the changes and differences will be linked to the changes in the structural positions of *hogy* and of the other complementisers. I will show that *hogy* – just like all the other complementisers – developed via the relative cycle, as described by van Gelderen (2009); in addition, I will demonstrate that it became a general marker of declarative Force in Old and Middle Hungarian – hence its strong potential for combining with other elements.

My account is strongly based on Rizzi's (1997) model of the left periphery on the one hand, and on generally attested grammaticalisation processes on the other hand; I will show that these enable one to understand the systematic diachronic changes behind the synchronic and diachronic Hungarian facts. The advantage of the proposal is that it may account for these phenomena as parts of a system, instead of providing partial analyses; furthermore, the application of mechanisms that are cross-linguistically attested also relate the Hungarian changes to more general processes. In this way, the present account is strongly restrictive in terms of what may qualify as a possible grammaticalisation process, which also increases the explanatory force of the analysis.

3. THE RELATIVE CYCLE

First of all, let us discuss the notion of the relative cycle. The relative cycle is a grammaticalisation process, whereby an original pronoun becomes first an operator moving to [Spec; CP], and subsequently this operator is reanalysed as the head of that CP (van Gelderen 2009; Roberts & Roussou 2003). Later on, it is also possible that the new C head is

reanalysed from the lower C head to the higher C, which is the case for English *that*, as shown by van Gelderen (2009).

I claim that the same happened to Hungarian *hogy* 'that'; the processes summarised in *Figure 5* refer to the changes of Hungarian *hogy*:
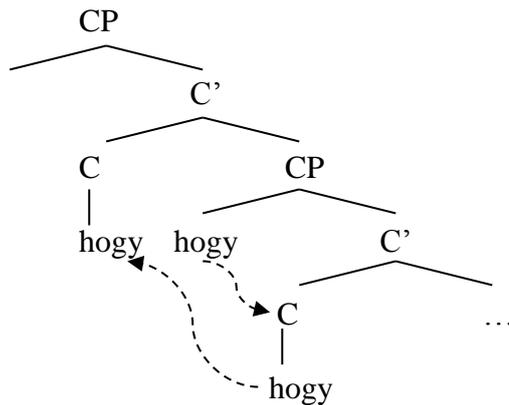

Figure 5

As can be seen, *hogy* first appears in the specifier position of the lower CP, which is the designated position of operators (cf. section 1). The first change affecting *hogy* within the left periphery is that it is reinterpreted as the head of the same CP and becomes a lower C head. Finally, it is reanalysed from a lower to a higher C head.

The question arises why these changes take place at all. In fact, both steps are motivated by economy: economy is a basic principle of generative grammar, which ensures that the derivation of syntactic structures, i.e. the way clauses and phrases are built up in a bottom-up fashion, is as simple as possible and includes only a minimal number of steps. Recalling what was said about simple Merge and movement in section 1, it should be clear that Merge is preferable over movement in general. This is formalized in two main principles: the Head Preference Principle (HPP) and the Late Merge Principle (LMP), cf. van Gelderen (2004). The HPP states that it is preferable to be a head than a phase: in terms of the changes summarised in *Figure 5*, it refers to the reanalysis from operator to complementiser as it is

more economical to be base-generated as a C head in the CP-domain than to be moved there as an operator. Naturally, this is possible only if the elements in question lose their functions that they used to have in the TP-domain: if this condition is met, elements are likely to be reanalysed as functional C heads.

The LMP states that it is more economical to be base-generated in a higher position than to be moved to that position. This is responsible for the reinterpretation of *hogy* as a higher C head from a lower one. The reason behind this is simply that it is the higher C head that is responsible for defining the Force of the clause (see section 1) and the fact that certain overt lower C heads become associated with carrying Force implies that these elements also start moving up to the higher C head (cf. Rizzi's view on the fusion of Force and Finiteness if there are no intervening elements and there is only one complementiser, Rizzi 1997). This again leads to a choice between movement and base-generation at a higher point in the structure – and just as in the case of the HPP, the latter configuration is preferred.

4. SIMPLEX COMPLEMENTISERS

As a matter of fact, the other present-day Hungarian complementisers also developed by way of the relative cycle; these are: *ha* 'if', *mint* 'than/as' and *mert* 'because'. For all of these, including of course the declarative *hogy* 'that', it is true that they were originally pronouns, which came to be operators (cf. Juhász 1991: 479–481, 1992: 781, 783–785, 801; Haader 1991: 729–737, 1995: 510–677). Due to a functional split between the original operator and the newer complementiser functions, the related operators can still be found in the language – for instance, the related operator of *hogy* is the interrogative pronoun *hogy(an)* 'how'. Though the processes are very much alike for all the four complementisers, there is an important difference with respect to the chronology. In the case of *hogy* and *ha*, the functional split took place before the Old Hungarian period. Hence, in Old Hungarian *ha* was always in

the higher C head position, while *hogy* was typically a higher C head and rarely a lower one. By contrast, for *mint* and *mert* the split took place only during the Old and Middle Hungarian periods; as a consequence, *mint* and *mert* were either still operators in the lower [Spec; CP] or occupied the lower C head position. Consequently, for instance, a form *mert* could be used both for the operator 'why' and for the complementiser 'because' and the same is true for *miért*, while in Modern Hungarian *miért* in invariably 'why' and *mert* is 'because'. Evidence for whether a given complementiser occupied the higher or the lower C head comes from its relative position with respect to other complementisers in combinations, as will be demonstrated in the next section.

The possible Old Hungarian positions for present-day complementisers are summarised in *Figure 6*:
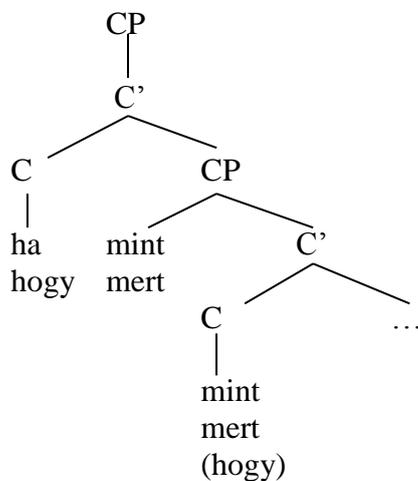

Figure 6

As can be seen, the various present-day complementisers could take various positions historically; ultimately all of them came to be base-generated in the higher C head position.

5. MULTIPLE COMPLEMENTISERS

On major question that arises in connection with the representation given in *Figure 6* is whether it was possible for elements occupying distinct positions to co-occur in one left

periphery. The answer is positive: in Old and Middle Hungarian, it was allowed to have two overt complementisers in one left periphery, in combinations such as the one shown in (2):

(2) a. edesseget   erze   nagÿoban **hogÿmint** annak   elọtte
         sweetness-Acc. felt-3.Sg. greater   that.than   that-Dat. before-Poss.1.Sg.
         '(s)he felt sweetness even more than before' (*LázK.*, 141)

     b. De**hogÿ   mert**   zent ferenc ÿgen zeretiuala   ewtett   tÿztasagert es
         but.that   because saint Francis well liked.was-3.Sg. him-Acc. purity-Fin. and
         alazatossagaert   kyt   valuala   Monda   nekÿ
         humility-Poss.3.Sg.Fin. who-Acc. have-3-Sg.was   said-3.Sg. him-Dat.
         'but because Saint Francis liked him well for his purity and for his humility that
           he had, he said to him' (*JókK.*, 46)

As can be seen, the examples above contain subclauses introduced by the elements *hogy* 'that' and *mint* 'than/as' or *mert* 'because'. Note that I retained the original spelling and hence the fact that two words are written without a space is only because in the Old – and Middle – Hungarian orthography there were no set rules as to what was written together and what was not, i.e. it is not used here to indicate that they would have been one complex unit, since this was not the case.

The possible structures of the relevant left peripheries in (2) are shown in *Figure 7*:
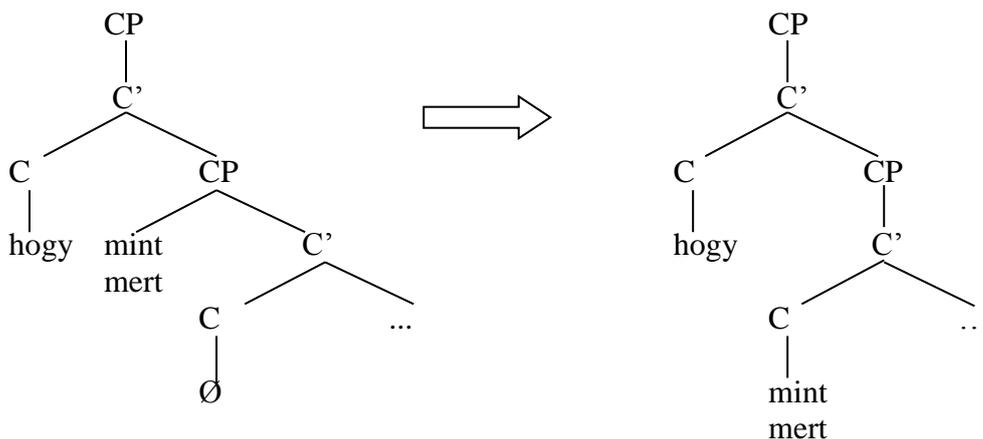

Figure 7

The diagram on the left shows the earlier stage when *mint* and *mert* were still operators moving to the specifier of the lower CP: as they grammaticalised into C heads, the structure is the one on the right. Naturally, such configurations had fixed word order predictably

conforming to *Figure 6*: since typically *hogy* was located in the upper C head position, most combinations of two separate C heads (or of an upper C head and an operator) are in the *hogy*+X order – hence the configurations *hogymint* 'that than' and *hogymert* 'that because'. Note that besides the order of the two elements being predictable, so is the meaning: for all combinations *hogy*+X the meaning is invariably that of X.

One way of testing the claim that these are indeed C + C combination that involve two separate C heads is to see whether they are allowed in Modern Hungarian: as has been said, there are no such combinations any longer in the language (the reasons for this will be explained in section 7) so *hogymint* and *hogymert* cannot be possible. This is indeed the case; hence there is no controversy between the analysis and the historical data.

6. COMPLEX COMPLEMENTISERS

Having established this, let us now turn to the problem of movement. As was argued for in section 4, all present-day Hungarian complementisers went through the relative cycle and ended up in the higher C head position. This means that also *mint* 'than/as' and *mert* 'because', which are in the lower C head in *Figure 7*, started to move up to the higher C head position at one point. Interestingly, this happened not only when the upper C head contained no overt complementiser but also when it was already filled by one.

This was how grammaticalized complex complementisers developed: they stem from the sequence of two separate simplex complementisers by way of the lower C head moving up to the upper one and adjoined to it. Adjunction for heads roughly means that when one head moves to the other, they unite in the position of the latter and will behave as one head thereafter, e.g. further movement may affect only both of them together (as one unit), never just one of them.

However, the application of head adjunction results in the reverse order of the two heads, due to Kayne's Linear Correspondence Axiom (Kayne 1994); cf. also the Mirror Principle of Baker (1985, 1988). In other words, while the linear order of the two elements in their base positions is such that the higher head invariably (and naturally) precedes the lower one, head adjunction merges the original lower element to the left of the upper one and thus their order changes.

Hence, an original combination such as *hogymint* 'that than' or *hogymert* 'that because' was reversed to *minthogy* 'than that' or *merthogy* 'because that', respectively, as shown by the following examples:

(3)   a.   semi   nagob   nem   mondathatik: **mint**   **hogh**   legǫn
           nothing   *greater*   *not*   *say-Pass.Cond.3.Sg.*   *than*   *that*   *be-Subj.3.Sg.*
             istenek   ania
             God-Dat.   mother
             'nothing can be said to be greater than that she be the mother of God'
                (*TihK.*, 143)

         b.   Melÿ   bozzosagokot   frater   Bernald.| bÿzon   zent. nem czak
           which   irritations-Acc.   brother   Bernald   indeed   saint not   only
           engedelmest.| de   es   vÿgasagost   zenuediuala:| **Mert**   **hogÿ**
           obeying-Acc.   but   too   joyful-Acc.   suffered-3.Sg.was   because   that
           bizonual   uoltuolna   cristusnak   tekelletes   tanoÿtuanÿa
           indeed-Com.   was-3.Sg.be-Cond.   Christ-Dat.   perfect   student-Poss.3.Sg.
           nepnek   vtalatÿa   es   emberek   zemerme
           folk-Dat.   detest-Poss.3.Sg.   and   people   shame-Poss.3.Sg.
          'which irritations brother Bernald, indeed a saint, suffered not only obeyingly but also joyfully: for he was indeed a perfect student of Christ, and the detest and the shame of people' (*JókK.*, 20–21)

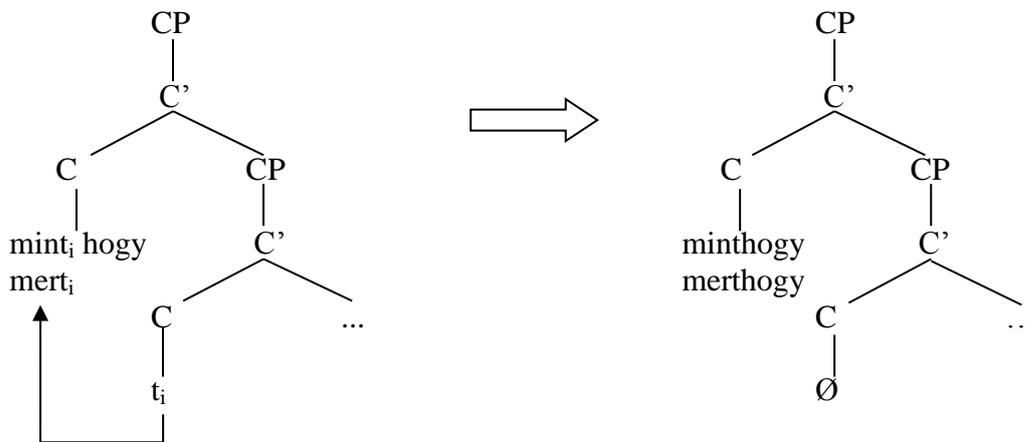The possible corresponding structures are shown in *Figure 8*:

Figure 8

Let us now concentrate on the left-hand side diagram. As can be seen, *mint* and *mert* are base-generated in the lower C head and when they move up to adjoin to *hogy* in the upper one, they are adjoined from the left and hence will appear first. Again, such configurations had fixed word order conforming to *Figure 8*: since typically *hogy* was originally located in the upper C head position, most combinations of merged C heads are in the X+*hogy* order – hence the configurations *minthogy* 'than that' and *merthogy* 'because that'. Note that the (original) meaning of a combinations X+*hogy* the meaning is 'X', just like for *hogy*+X combinations: as a result, a given pair of *hogy*+X and X+*hogy* combinations, where X refers to the same complementiser, denotes two interchangeable variants.

Recall that in section 3 it was said that base-generation is preferred over movement and hence complementisers moving up from the lower C head to the upper one were ultimately reanalysed as higher C heads (cf. the Late Merge Principle). This happened in the case of complex complementisers too: they started to be base-generated as complex units instead of two separate elements resulting in a combination only via movement. In this way, they became fully grammaticalised complex complementisers and their being complex is a matter of morphology and no longer of syntax. This stage is represented in the right-hand side diagram in *Figure 8*.

Since ultimately all complementisers came to be located in the higher C head, the prediction is that while the fully grammaticalised complex combinations should be preserved in Modern Hungarian too, the original C+C combinations should not exist. This prediction is borne out: while *hogymint* and *hogymert* are no longer possible, Modern Hungarian still has *minthogy* and *merthogy*.

7. THE POSITION OF *HOGY*

With respect to the position of *hogy* 'that', it can be seen that the underlying order was typically of the form *hogy*+X, which is in line with the fact that *hogy* was typically located in the higher C head anyway. Since complex complementisers surviving to the present day are invariably of the reverse order, it should not be surprising that, as a consequence, generally combinations of the form X+*hogy* remain in the language.

There is one seemingly exceptional case, though: that of *hogy* and *ha* 'if', where the underlying order was *ha*+*hogy*. Considering what was said about the typical positions of *ha* and *hogy* in section 4, however, this is not the least surprising: while *ha* was invariably a higher C head as early as the Old Hungarian period, *hogy* was preferably also a higher C head but could still appear in the lower C head position. Hence if they co-occurred in one CP-domain, their underlying order was naturally *ha*+*hogy*, as *ha* could not be a lower C head. Apart from theoretical reasons, there is also independent evidence for the fact that *hahogy* reflects the underlying order: there may appear other elements in between the two CP projections (e.g. topic or focus, cf. Rizzi 1997). Therefore if there is a single clause where there is an intervening element between the two C heads, then those C heads must be in separate projections – in other words, if there is a clause containing an intervening element between *ha* and *hogy*, then the string *hahogy* contains two separate C heads and hence represents the underlying order. This is indeed the case, as shown in (4):

(4) **Ha** késen **hogy** el   nyugot az nap, hamar esŏt   váry
     if *late* *that* *PREV* *set-3.Sg. the sun soon   rain-Acc. expect-Imp.2.Sg.*
     'if the sun has set late, expect rain soon' (*Cis.*, G3)

As can be seen, the left periphery of the embedded clause contains the complementisers *ha* and *hogy*; in between the two, the adverb *késen* 'late' can appear.

It has to be mentioned that since the preferable position for *hogy* was the higher C head, the tendency was that *hogy* moved up also when combined with *ha*: as a result, the reverse order *(hogyha)* was more frequent even in Old and Middle Hungarian than the underlying order *(hahogy)*. Again, the meaning of *hogyha* and *hahogy* is normally identical to that of *ha* 'if', thereby corresponding to the general scheme of *hogy*+X and X+*hogy* combinations carrying the meaning of 'X'.

The only case where the meaning is also partially defined by *hogy* is the case of conditional comparatives: as the original complementiser for introducing comparative subclauses was *hogy* (for further discussion, see section 9), the combination with *ha* in comparatives naturally resulted in clauses that were both comparative and conditional, similarly to the combination *as if* in English. This function is shown for *hogyha* in (5b):

(5) a. Az én jó   istenem,   **ha hogy** sok   ellenség, reám
         the I good   God-Poss.1.Sg. if that   many   enemy   I-Subl.
         fegyverkezék, tŏlŏk   megmente
         arm   they-Abl.   saved-3.Sg.
         'my good God, if many enemies armed against me, saved me from them'
         (*Balassa: Ének.*, 32)

     b. vig   orchaual elmegien   vala,   **hogiha** ingen   nem
         happy face-Com. away.went-3.Sg. was-3.Sg. that.if   absolutely not
         hallanaÿa
         hear-Cond.3.Sg.
         '(s)he went away with a happy face, as if (s)he had absolutely not heard it'
         (*VirgK.*, 81)

As can be seen, both clauses contain a combination of *hogy* and *ha*, and both clauses are conditional comparatives.

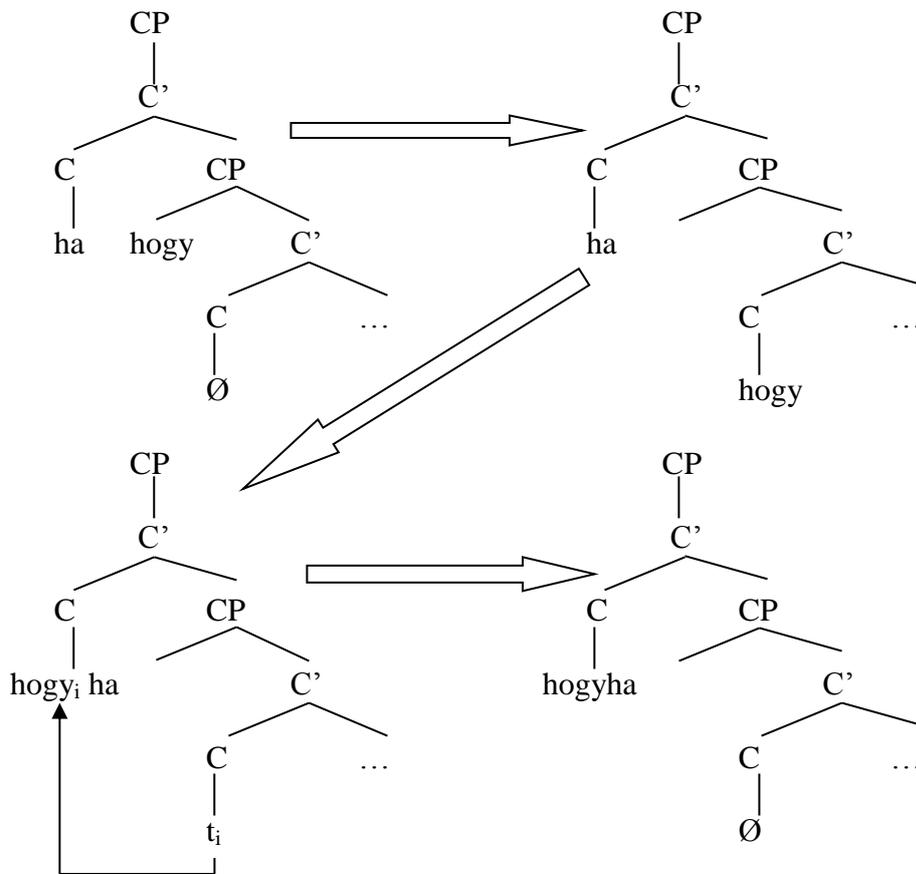The structural changes affecting *hogy* in combinations with *ha* are summarised in *Figure 9*:

Figure 9

As indicated, the individual stages are in line with the ones given in *Figure 7* and *Figure 8*: the only difference is that *hogy* starts from the lower C head position – and since movement for *hogy* was preferred, most data conform to the last two stages.

8. RELATIVE CLAUSES

Apart from the complex complementiser combinations mentioned so far, *hogy* 'that' could take part in other combinations in the left periphery: ordinary relative clauses could also contain the sequence of *hogy* + a relative operator both in Old and in Middle Hungarian, although it was enough for a relative clause to be introduced by the operator (cf. Juhász 1992: 792; Galambos 1907: 14–18; Bácskai-Atkári 2011: 112–113). An example is shown in (6):

(6) olÿaat   tezǫk   raÿtad   **hog kÿtǫl**   felz
     such-Acc. do-1.Sg. you-Sup. that   who-Abl.   fear-2.Sg.
     'I will do such on you that you fear' (*SándK.*, 28)

As can be seen, the complementiser *hogy* is followed by the operator *kitől* 'who-Abl.': the basic form of this combination is that of *hogy* and the operator *ki* 'who', which could be overtly marked for case (i.e. for any case apart from the Nominative). The other possibility was to combine *hogy* with the operator *mi* 'what', which could again be overtly marked for case and hence display a large number of forms. It is worth mentioning that *hogy* was not exceptional with respect to its ability to combine with operator in relative clauses: there are several examples with the complementiser *ha* 'if' as well (without such clauses being conditional, however). Consider:

(7)   kÿ   tegǫd   zereth. az   nem epedh: **ha kÿ**   keserg   akkor   wÿgad
      who   you-Acc. loves   that   not   longs   if   who   moans   then   rejoices
      'those who love you, do not long: those who moan, then rejoice' (*CzechK.*, 51–52)

The left periphery of the subclause in (6) – containing the complementiser *hogy* and the relative operator *kitől* – is given in *Figure 10*:
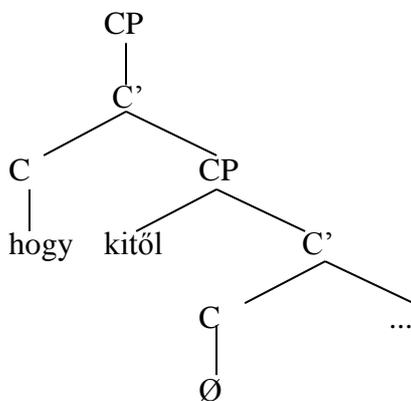

Figure 10

As can be expected, *hogy* occupies the higher C head position, while the operator is located in the specifier of the lower CP, conforming to the general pattern of the CP-domain outlined in section 1; naturally, the same would be true for *ha* + operator combinations. On the other hand, this configuration is similar to the precursor of C + C combinations (see *Figure 7*),

where the future complementisers *mint* and *mert* were still operators and hence located in the specifier of the lower CP.

Since relative operators did not develop into C heads, the reverse order of *hogy* and the relative operators was not possible: accordingly, there are no such examples to be found. This difference should not be surprising: recall that in section 3 it was said that the reanalysis of operators into C heads is possible only if they lose their functions that they used to have in the TP-domain. In the case of *ki* and *mi* this condition was clearly not met as these elements were base-generated as arguments of the lexical verb and hence their base-generation as C heads would have severely affected the argument structure of the clause. It logically follows that operators retaining their original person and number features will not be reanalysed as C heads.

9. FUNCTIONS OF *HOGY*

Since, as should be obvious, *hogy* 'that' had the ability to appear in a large variety of constructions, the issue of the functions *hogy* could have also must be addressed.

With respect to comparatives, the examples discussed so far might suggest that *hogy* in these constructions was subsidiary to *mint* 'than/as'. This is, however, not the case: the original comparative complementiser was actually *hogy* (cf. the discussion at the end of section 7). It was a change that took place in Old Hungarian that *mint* appeared in the subclause: first introduced as an operator and subsequently reanalysed as a lower C head, following the mechanism of the relative cycle (cf. Bácskai-Atkári 2011). As *mint* started to be interpreted as the element responsible for introducing comparative Force in the subclause, *hogy* gradually lost the same function.

On the other hand, with the loss of specific functions, *hogy* became the general marker of subordination. This was accompanied by functional extension: *hogy* appeared in other clauses

functioning as a general subordinating C head. There are two main pieces of evidence for this that ought to be familiar from the previous sections. First, *hogy* could appear in a wide range of clauses, such as conditionals, clauses of reason or relative clauses. Second, it has to be observed that the meaning of a combination *hogy*+X or X+*hogy* did not (initially) differ from the meaning of X, which is a clear indication of *hogy* being a marker of a functional syntactic property.

Later, as other complementisers started to consistently mark subordination besides their specific functions, *hogy* was no longer used as a general subordination marker and hence was no longer combined with other elements in the way it clearly used to be. This naturally contributed to the disappearance of *hogy* in relative clauses but it did not affect already grammaticalised complex complementisers as they were fossilised syntactic units.

10. CONCLUSION

The aim of this article was to investigate the issue of the Hungarian declarative complementiser *hogy* 'that'. It was shown that *hogy* developed via the relative cycle from an original operator into a complementiser head, which from a lower C was later reinterpreted as a higher one, in the same way as English *that* developed. I also demonstrated that *hogy* originally had other, more specific functions too but was gradually interpreted as a general marker of subordination and hence came to be used in a wide range of constructions. Since it frequently appeared together with other complementisers too, it also took part in the formation of complex complementiser units. With the development of all the other complementisers into ones occupying the higher C head position, *hogy* was no longer necessary to mark subordination separately – hence only those complex complementisers remain in the language that were fully grammaticalized into a single C head.

LIST OF TEXTUAL SOURCES

Balassa: Ének. = Balassa Bálint énekei [The songs of Bálint Balassa]. Levoča 1693.

Cis. = Cisio. Cluj-Napoca 1592.

CzechK. = Czech-kódex [Czech Codex]. 1513.

JókK. = Jókai-kódex [Jókai Codex]. 14th–15th century.

LázK. = Lázár-kódex [Lázár Codex]. After 1525.

SándK. = Sándor-kódex [Sándor Codex]. The first quarter of the 16th century.

TihK. = Tihanyi-kódex [Tihanyi Codex]. 1532.

VirgK. = Virginia-kódex [Virginia Codex]. Before 1529.

REFERENCES

BÁCSKAI-ATKÁRI, JÚLIA, 2011. 'A komparatív operátor esete a mondatbevezetővel: Szintaktikai változások a magyar hasonlító mellékmondatokban', in Katalin É. Kiss & Attila Hegedűs (eds.), *Nyelvelmélet és diakrónia*, Budapest & Piliscsaba: Szent István Társulat, 103–119.

BAKER, MARK, 1985. 'Mirror theory and morphosyntactic explanation', *Linguistic Inquiry* 15. 373–415.

BAKER, MARK, 1988. *Incorporation: A Theory of Grammatical Function Changing*, Chicago: University of Chicago Press.

CHOMSKY, NOAM, 1977. 'On WH-movement', in Peter W. Culicover et al. (eds.), *Formal Syntax*, New York: Academic Press, 71–132.

CHOMSKY, NOAM, 1995. *The Minimalist Program*, Cambridge, MA: MIT Press.

GALAMBOS, DEZSŐ, 1907. *Tanulmányok a magyar relatívum mondattanáról*, Budapest: Athenaeum.

HAADER, LEA, 1991. 'Az alárendelő mondatok: Az alanyi, állítmányi, tárgyi és határozói mellékmondatok', in Loránd Benkő (ed.), *A magyar nyelv történeti nyelvtana I.: A korai ómagyar kor és előzményei*, Budapest: Akadémiai Kiadó, 728–741.

HAADER, LEA, 1995. 'Az alárendelő mondatok: Az alanyi, állítmányi, tárgyi és határozói mellékmondatok', in Loránd Benkő (ed.), *A magyar nyelv történeti nyelvtana II/2.: A kései ómagyar kor: Mondattan. Szöveggrammatika*, Budapest: Akadémiai Kiadó, 506–665.

JUHÁSZ, DEZSŐ, 1991. 'A kötőszók', in Loránd Benkő (ed.), *A magyar nyelv történeti nyelvtana I.: A korai ómagyar kor és előzményei*, Budapest: Akadémiai Kiadó, 476–500.

JUHÁSZ, DEZSŐ, 1992. 'A kötőszók', in Loránd Benkő (ed.), *A magyar nyelv történeti nyelvtana II/1.: A kései ómagyar kor: Morfematika*, Budapest: Akadémiai Kiadó, 772–814.

KAYNE, RICHARD, 1994. *The Antisymmetry of Syntax*, Cambridge, MA: MIT.

KENNEDY, CHRISTOPHER & MERCHANT, JASON, 2000.' Attributive Comparative Deletion',

Natural Language & Linguistic Theory 18. 89–146.

RIZZI, LUIGI, 1997. 'The Fine Structure of the Left Periphery', in Liliane Haegeman (ed.), *Elements of Grammar*, Dordrecht: Kluwer, 281–337.

ROBERTS, IAN, 2005. *Principles and Parameters in a VSO Language*, Oxford, Oxford University Press.

ROBERTS, IAN & ROUSSOU, ANNA, 2003. *Syntactic Change: A Minimalist Approach to Grammaticalization*, Cambridge: Cambridge University Press.

VAN GELDEREN, ELLY, 2004. *Grammaticalization as Economy*, Amsterdam: John Benjamins.

VAN GELDEREN, ELLY, 2009. 'Renewal in the Left Periphery: Economy and the Complementiser Layer', *Transactions of the Philological Society* 107:2, 131–195.