THE SYNTAX OF THE FINNISH QUESTION PARTICLE

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1. Question and focus clitics[1]

In descriptive terms Finnish yes/no-questions (YNQs) are formed by adjoining the enclitic particle *-ko*, realized as *-ko* or *-kö* subject to vowel harmony, to the first constituent of the sentence. In the unmarked case this is the finite verb or auxiliary, or, in negative questions, the negation word (which may be classified as a finite auxiliary), moved to sentence-initial position. [2,3]

(1)   a.   Olli ajoi   illalla   kaupunkiin.

                Olli drove evening-ADE town-ILL

                'In the evening Olli drove into town.'

        b.   Ajoi-**ko** Olli illalla   kaupunkiin?

                drove-Q Olli evening-ADE town-ILL

                'Did Olli drive into town in the evening?'

        c.   On-**ko** kukaan muistanut   tuoda sokeria?

                has-Q anyone remembered bring sugar

                'Has anyone remembered to bring sugar?'

        d.   Ei-**kö** siellä kasva kaktuksia?

                not-Q there grow   cactuses

                'Don' t cactuses grow there?'

In the marked case when the question narrowly focuses on a constituent of the sentence, that constituent is fronted, and the clitic is attached to it. I will refer to this as *questioned focus* (as opposed to the usual *asserted focus*).

(2)   a.   Olli-**ko** ajoi   illalla   kaupunkiin?

                Olli-Q drove evening-ADE town-ILL

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[2] Abbreviations: ADE = Adessive, INE = Inessive, ELA = Elative, ILL = Illative.
[3] In the examples the clitic is set off by a hyphen and bolded for easier recognition. In normal Finnish spelling the clitics discussed here are all spelled together with their host word.

'Did OLLI drive into town in the evening?' or 'Was it Olli who drove into town in the evening.'

b. Kaupunkiin-**ko** Olli ajoi   illalla?

town-ILL-Q   Olli drove evening-ILL

'Did Olli drive into TOWN in the evening.'

b. Illalla-**ko**   Olli ajoi kaupunkiin?

evening-ADE-Q Olli drove town-ILL

'Did Olli drive into town in the EVENING?'

Finnish has two other sentential clitic particles with similar syntactic properties: *-pA(s)* and *–hAn* (realized as *–pa(s)* or *pä(s)*, or *-han* or *–hän*, subject to vowel harmony). One important semantic functions of *–pA(s)* is to express contradiction with a previous claim, while *–hAn* has a variety of modal shades of meaning, often involving confirmation of expectation.

(3)   a.   Ajoi-**pas**   Olli kaupunkiin!

drove-PAS Olli town-ILL

'Olli did, too, drive into town!'

b.   Kaupunkiin-**pas** Olli ajoi!

town-ILL-PAS   Olli drove

'It was into town that Olli drove (not, as you claim, to the beach).'

c.   Sinä-**hän** olet unohtanut tuoda sokeria!

you-HAN have forgotten bring sugar

'But you've forgotten to bring sugar!'

d.   Ei-**hän**   siellä kasvaa kaktuksia.

NEG-HAN there grow   cactuses

'There aren't any cactuses growing there, are there!'

In addition there is the clitic *–kin*/*-kaan* 'too, either, even', which is different in that it is not restricted to the left periphery of the sentence (the form is *-kaan* in the scope of negation, *-kin* in other contexts).

(4)   a.   Olli ajoi illalla-**kin** kaupunkiin.

'Olli drove into town in the evening, too (not just in the day).'

b.   Siellä ei   kasvaa kaktuksia-**kaan**.

there not grow   cactuses-KIN

'Even cactuses don't grow there/ Cactuses, too, don't grow there.'

This paper is mainly about the question clitic, but also about the focus clitic *–kin/-kaan*, while the two other clitics will be ignored. [4]

Described in these terms it looks like the question particle is a second position clitic, plausibly derived by merging it as a species of C in the left periphery of the sentence, and moving a constituent to specCP, or perhaps adjoining it to C in the case of a head (as in (1)), the moved category providing a host for the clitic. I will show that this is not a viable analysis, though, when more facts are taken into account. The facts concern the interplay of focus and the placement of the question and the focus clitic. I will discuss two alternative theories, neither of which assumes that the enclitic question particle *–ko* is a C-element. According to both theories, *-ko* is like *–kin* in that it has a focus feature which is unvalued in Chomsky's (2001) sense, which determines its syntactic distribution relative to focus, but unlike *–kin* in that it has a [WH]-feature which triggers movement of the *–ko*-marked constituent to the C-domain. According to one theory, *-ko* is syntactically exactly like the focus clitic *–kin*, and as such can be merged with virtually any constituent. According to the other, ultimately preferred theory, in cases like (2a,b,c) *-ko* is merged with a maximal phrase KP, triggering movement of a Foc-marked subconstituent of KP to spec of *-ko*, before movement of KP to specCP.

2. The standard analysis

What might, somewhat pompously, be called the standard analysis of the question clitic (within a generative framework) is that it is the spell-out of a Q(uestion)-marked C, which, perhaps on account of being morphologically a clitic, attracts a constituent, which adjoins to it if it is a head (e.g. the finite verb) or lands in specCP if it is an XP; see Holmberg & al. (1993: 192f.), Holmberg (2003). The same analysis can be extended to the two other left-periphery clitics, with C appropriately marked.

This cannot be the whole story, though. The problem is that when the questioned constituent is complex, the question clitic is not necessarily attached to the whole constituent, but instead can be attached to a subconstituent. Corresponding to the declarative (5) there are three possible question forms focusing on subconstituents of the adverbial *Ollin isän autolla*

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[4] See Hakulinen & al. (2004: 154-167) on sentential clitics, (pp. 159-161) on the placement of the clitics.

'in Olli's father's car'. I label this constituent 'KP', short for Kase Phrase. KPs with a semantic case such as Adessive may be more correctly classified as PPs with a covert P head, as argued by Nikanne (1993). This is not crucial in what follows, though.

(5)   Me ajettiin kaupunkiin Ollin   isän   autolla.

        we drove   town-ILL   Olli-GEN father-GEN car-ADE

        'We drove into town in Olli's father's car.'

(6)   a.   Ollin-**ko** isän   autolla   te ajoitte?

             Olli's-Q father's car-ADE you drove

       b.   Ollin isän-**kö** autolla te ajoitte?

       c.   Ollin isän autolla-**ko** te ajoitte?

             'Was it Olli's father's car that you took?'

(7)
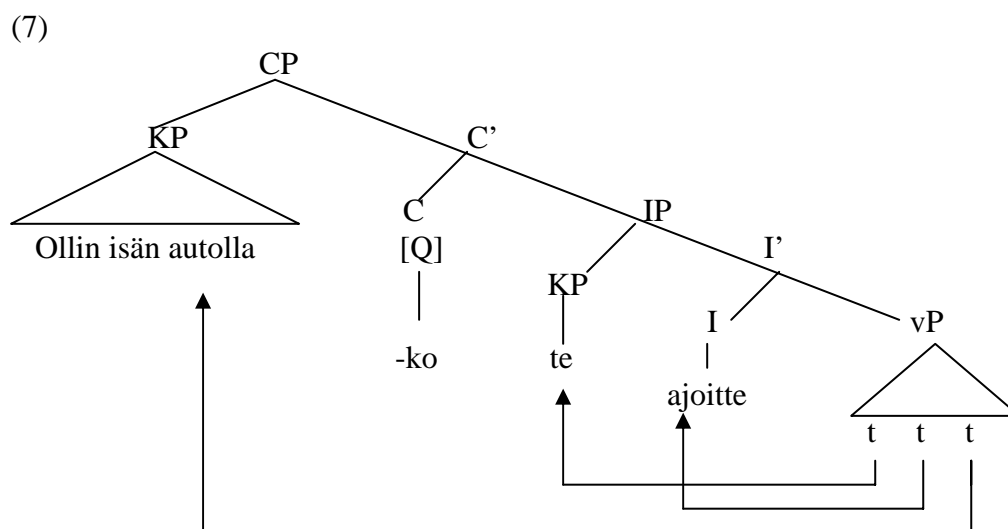
The analysis of the IP, with V-movement to I, is as in Holmberg & al. (1993) and Holmberg & Nikanne (2002). The standard analysis of -*ko* accounts straightforwardly for (6c), but what about (6a,b)? In the following I will compare some alternative theories of questioned focus to try to determine which is the best one.

        I will first present some additional facts which the theory should account for, and which, therefore, the alternative theories will be judged by. They concern the interplay between the scope of focus and the position of the clitic.

3. The scope of focus in questions

Consider first (6a), repeated here as (8):[5]

(8)   Olli**ko** isän autolla te ajoitte?

        Olli's-Q father's car-ADE you drove

This sentence has only one reading, with narrow contrastive focus on *Olli*. In English this would typically be expressed by a cleft with stress on *Olli*.

(9)   Was it OLLI's father's car that you took?

Indeed in (6a) the focus stress can only fall on *Olli*, as in (10a).

(10)   a.   OLLIN**ko** isän autolla te ajoitte?

        b.   *Olli**ko** ISÄN autolla te ajoitte?

        c.   *Olli**ko** isän AUTOLLA te ajoitte?

Now consider (6b), repeated here as (11):

(11)   Ollin isän**kö**   autolla te   ajoitte?

        Olli's father's-Q car-ADE you drove

This sentence has three readings, depending on where the focus stress falls. If it falls on *isän*, as in (12), there are two readings: Either narrow scope on *isän* 'father's' (12'), or scope on the larger phrase *Ollin isän* 'Olli's father's', (12''); I have added a contrasting conjunct to better bring out the intended interpretation (as the stress pattern in the translation is, or at least can be, the same in both cases, due to the fact that default (nuclear) stress falls on *father*).

(12)   Ollin ISÄN**kö** autolla te ajoitte?

(12')   Was it Olli's FATHER's car that you took (or his uncle's)?

(12'')   Was it Olli's father's car that you took (or YOUR old car) ?

If, however, the focus stress falls on *Ollin*, as in (13), the sentence will have narrow focus on that constituent, as in (13').

(13)   OLLIN isän-**kö** autolla the ajoitte?
(13')   Was it OLLI's father's car that you took?

That is to say, (13) and (10) are synonymous. What we cannot have is –*ko* on *isän* and focus stress on *autolla*.

(14)   *Ollin isän-kö AUTOLLA te ajoitte?

 Consider (6d), here (15):

(15)   Ollin isän autolla-**ko** te ajoitte?

This sentence has four readings, depending on where the stress falls. If it has neutral stress the whole KP is focused.[6] If the focus stress falls on *autolla*, there will be narrow focus on that constituent.

(16)   Ollin isän AUTOLLA-**ko** te ajoitte?
         'Was it John's father's CAR that you took (or his motorbike?)'

If the stress falls on *isän*, it will have narrow scope on that constituent, or scope over *Ollin isän*. Again, I have added a contrasting conjunct in the translation, to distinguish the two readings.

(17)   Ollin ISÄN autolla-**ko** te ajoitte?
(17')   Was it Olli's FATHER's car that you took (or his uncle's)?

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[6] Neutral stress and entire KP-focus is most naturally rendered with stress on both *isän* and *autolla*. This reading would be natural in a context such as (i):
 (i)   Miten te sinne menitte? Ollin isän autollako?
         'How did you get there? In Olli's father's car?'

(17'') Was it Olli's father's car that you took (or YOUR car)?

Finally, if the stress falls on *Ollin*, the scope of the focus will include that constituent only.

(18) OLLIN isän autolla**ko** te ajoitte?
      'Was it OLLI's father's car that you took?'

Now consider another set of examples:

(19) a.   Siitä**kö**   vanhasta kirjasta   te puhutte?
              that-ELA-Q old-ELA book-ELA you talk
      b.   Siitä vanhasta**ko** kirjasta te puhutte?
      c.   Siitä vanhasta kirjasta**ko** te puhutte?
              'Are you talking about that old book?/ Is it that old book that you are talking
              about?'

(19a) has only one possible stress pattern and one interpretation: Stress and focus on the demonstrative.

(20) SIITÄ**kö**   vanhasta kirjasta   te puhutte?
      that-ELA-Q old-ELA book-ELA you talk
      'Are you talking about THAT old book?'

(19b) has two possible stress patterns and interpretations: Stress and narrow focus on the adjective, or neutral stress and focus on the whole KP, most naturally rendered with stress on each of the constituents, the demonstrative, the adjective, and the noun.

(21) a.   Siitä VANHASTA**ko** kirjasta te puhutte?
              'Are you talking about that OLD book?'
      b.   SIITÄ VANHASTA**ko** KIRJASTA te puhutte?
              'Is it THAT OLD BOOK that you are talking about?'

The second of these readings is somewhat unexpected, and I will put it aside for now, coming back to it in section 7. What is important here is that (22), with –*ko* cliticized to the adjective but stress on the demonstrative is ungrammatical, as is stress on the noun.

(22) a. *SIITÄ vanhasta**ko** kirjasta te puhutte?

b. *Siitä vanhasta**ko** KIRJASTA te puhutte?

(19c), finally, has four possible stress patterns with corresponding readings: (23a), A neutral one, most naturally rendered with nuclear stress on both the adjective and the noun;[7] (23b), focus stress with narrow scope on the demonstrative, synonymous with (20); (23c), focus stress with narrow scope on the adjective, synonymous with (21); (23d), focus stress with narrow scope on the noun.

(23) a. Siitä vanhasta kirjastako te puhutte?

b. SIITÄ vanhasta kirjastako te puhutte?

c. Siitä VANHASTA kirjastako te puhutte?

d. Siitä vanhasta KIRJASTAko te puhutte?

We can summarize these observations concerning the interplay of the question clitic and focus as follows:

(24) a. OLLIN (ko) isän (ko) autolla (ko)

b. Ollin (*ko) ISÄN (ko) autolla (ko)

c. Ollin (*ko) isän (*ko) AUTOLLA (ko)

(25) a. SIITÄ (ko) vanhasta (*ko) kirjasta (ko)

b. siitä (*ko) VANHASTA (ko) kirjasta (ko)

c. siitä (*ko) vanhasta (*ko) KIRJASTA (ko)

These facts conform to the following generalization:

(26) In the questioned focus construction focus must precede –*ko*.

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[7] The neutral reading of *siitä vanhasta kirjastako* would be natural in, for example, a context such as 'What are you talking about? That old book, again?'.

They also conform, a bit less obviously, to (27):

(27)   In the questioned focus construction *-ko* must c-command focus.

I will put aside generalisation (27) for the time being, and consider the standard analysis in the light of (26), to see if the generalisation can be made sense of under that analysis. The conclusion will be that the analysis and the generalisation are both inadequate. I will then present a set of observations concerning focus stress and the clitic *–kin* 'too, even', which will be shown to conform to generalisation (27), and consider two alternative analyses of *-ko* in the light of a comparison with *–kin*

4.   An inadequate theory

Consider the following theory, including an initially appealing variant of the standard analysis of the question particle. Let us call it Theory 1. First, assume that a category can be assigned a focus feature [Foc], an interpretable, valued feature, in Chomsky's (2001) sense, when it enters the derivation.[8] Assume that the sentence we want to derive is (28), where, as discussed, the focus stress can only fall on *Olli*.

(28)   OLLIN-ko isän autolla te ajoitte?
         'Was it OLLI's father's car that you took?'

The category assigned [Foc] is the name *Olli*, merged as the possessor of the noun *isä*, the resulting KP merging as the possessor of the NP *autolla*, which is merged with VP. (29) is a rough intermediate structure derived.

(29)   [$_{IP}$ te ajoitte [$_{KP}$ [Ollin isän] autolla]]
                        [Foc]

 Next, the category with [Foc] moves to the edge of the clause, pied piping "just enough material for convergence" (Chomsky 1995: 262f), typically a complete argument or adverbial. In (30), the focused KP *Olli* must pied pipe the entire adverbial KP headed by the

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[8] To conform with Chomsky's (1995) Inclusiveness condition, [Foc] must be assigned to a lexical item, whence it can project to higher nodes by Focus projection (Selkirk 1995).

possessee *autolla*. Next, the clitic *–ko* merges with the derived tree. The clitic has an interpretable question feature [Q] *and* an unvalued focus feature [uFoc]. In addition it has an EPP-feature.

(30)

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                              -ko
                              [uFoc]
                              [Q]              KP
                              [EPP]                                          IP

    .
                                    Ollin isän autolla
                                    [Foc]
                                                     te ajoitte  <Ollin isän vanhalla autolla>
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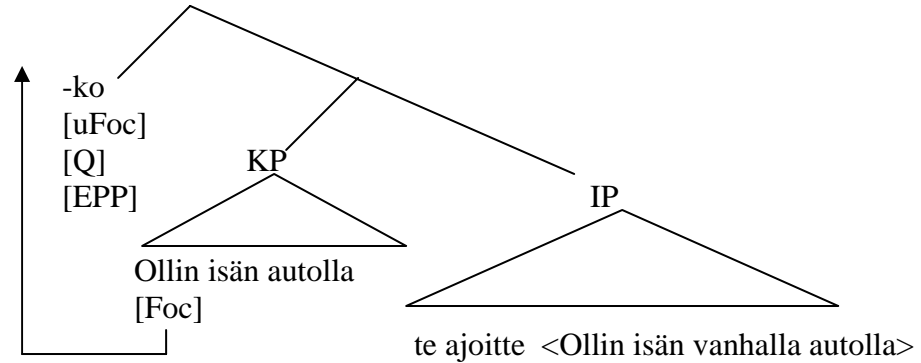
In the manner of Chomsky's (2001) operation Agree, the clitic's [uFoc] feature probes the fronted KP for a valued [Foc] feature, and, by virtue of the EPP-feature, triggers movement i.e. *internal merge*, in Chomskys (2006) terms, of the category encoding that feature with the root of the tree, providing a host for the clitic. In the case at hand, this will derive (28).

Alternatively, however, this second Focus movement can pied-pipe a bigger constituent, either *Ollin isän*, which derives (13), repeated here as (31a), or the entire KP *Ollin isän autolla,* deriving (18), repeated here as (31b).

(31)   a.   OLLIN isän**kö** autolla te ajoitte.
        b.   OLLIN isän autolla**ko** te ajoitte.

Assume that [Foc] is assigned to the noun *isä* 'father', instead (eventually spelled out as the genitive *isän*). In that case the EPP of *–ko* will attract minimally the constituent [*Ollin isän*], on the reasonable assumption that the head noun *isän* cannot move alone, stranding its specifier *Ollin*. Alternatively it can attract the bigger KP [*Ollin isän autolla*]. Assume that [Foc] is assigned to *auto* 'car' (eventually ending up with adessive case). In that case the EPP of *–ko* will attract minimally the entire KP [*Ollin isän autolla*].

We thus derive the interplay of focus and placement of *–ko* in this construction, as captured by generalisation (26), as a consequence of optionality of pied-piping, and a condition on movement which prevents stranding of a genitive specifier.

An additional attraction of this two-movement analysis of questioned focus is that it exploits a movement which Finnish has anyway, as contrastively focused phrases are often

fronted in Finnish (see Vilkuna 1989, 1995). In the case of asserted (not questioned) contrastive focus, fronting is not obligatory, as focus can be indicated by intonation alone, as in (31a). This holds true of questioned focus, too: In (31b) focus is marked by focus stress without any movement, while the question is marked by -*ko* attached to the fronted finite verb.

(31)   a.   Me ajettiin OLLIN isän   vanhalla autolla   kaupunkiin.
              we drove   Olli's   father's old-ADE car-ADE town-ILL
              'We took OLLI's father's old car into town.'

       b.   Ajoitte-**ko** te OLLIN isän vanhalla autolla kaupunkiin?
              drove-Q   you Olli's father's old-ADE car-ADE town-ILL
              'Did you take OLLI's father's old car into town.'

If the big KP containing focus is fronted, as in (30), -*ko* can attract the [Foc]-marked constituent. If it is not fronted, -*ko* attracts the finite verb, as a last resort.[9]

An objection to this theory and analysis of questioned focus in Finnish is that it requires relaxing standard conditions on movement, allowing movement out of a KP (which is disallowed for the first focus movement, hence the pied-piping of the KP), which furthermore is a left branch (violating the Left Branch Condition), which furthermore is derived by A-bar movement, which usually results in 'freezing' (Wexler & Culicover 1980).

An additional serious objection is that it cannot derive (21), repeated here as (32), as the two words preceding –*ko* do not make up a constituent.

(32)   Siitä vanhasta**ko** kirjasta   te   puhutte?
       that   old-ELA-Q book-ELA you talk
       'Are you talking about that OLD book?'

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[9] (30) also bears a vague resemblance to a cleft construction, the overt contrastive focus construction in English and many other languages.
(i)   It was [OLLI's father's car] [that we took t]
Here, too, the focused category is fronted, pied-piping the KP, and is presumably in construction with a focus feature (corresponding to [uFoc] in (30)), perhaps encoded by the copula (see Kiss 2006).

The structure of *siitä vanhasta kirjasta* or its nominative counterpart *se vanha kirja* 'that old book' is roughly (33) (where the precise labeling of the nodes is not crucial).

(33)   [_{DemP} se [_{NP} vanha [_{NP} kirja]]]

This is not an isolated example: Cliticisation of –*ko* to the adjective in corresponding constructions is generally acceptable.

(34)   a.   Näitten   epäselvien**kö**   ohjeitten   mukaan te aiotte yrittää ajaa?
              these-GEN unclear-GEN-Q instructions-GEN with   you intend try   drive
              'Do you intend to drive according to these unclear instructions?'

        b.   Tämän   toisen**ko**   ystävän autolla   te lopulta menitte?
              this-GEN other-GEN friend's car-ADE you finally went
              'Was it this other friend's car that you eventually went in.'

I will come back to these examples later, as the facts concerning –*ko*-cliticisation to attributive adjectives are more complicated than indicated here.

We can only conclude that Theory 1 is descriptively inadequate, and consider alternative theories.

Note also how the following fact concerning the construction in (32-34) shows that the generalisation (26) ('Focus must precede –*ko*') states a necessary but not sufficient condition on the distribution of -*ko*. The construction cannot have narrow focus on the demonstrative.

(35)   a.   *SIITÄ vanhastako kirjasta ...
        b.   *NÄITTEN epäselvienkö ohjeitten ...
        c.   *TÄMÄN toisenko ystävän ...

This fact about the interplay of –*ko* and focus is not captured by generalisation (26).

5.   The clitic –*kin/-kaan* and its consequences for –*ko*

Yet another reason to question Theory 1 is the fact that the focus clitic –*kin/-kaan* 'too, either, even' (henceforth just called –*kin*) exhibits the same interplay between stress and placement of the clitic as –*ko*, even though it involves no focus fronting. First, (36) shows

how the clitic can be adjoined to virtually any sentential constituent, with consequences for the scope of the focus.[10]

(36)   a.   **Me**kin ajettiin Ollin   isän   autolla   kaupunkiin.
                we-too drove   Olli-GEN father-GEN car-ADE town-ILL
                'We, too, drove into town in Olli's father's car.'

       b.   Me ajettiin**kin** Ollin isän autolla kaupunkiin.
                ´We drove into town in Olli's father's car, after all.'

       c.   Me ajettiin Ollin**kin** isän autolla kaupunkiin.
                ´We drove into town in OLLI's father's car, too.'

       d   Me ajettiin Ollin isän**kin** autolla kaupunkiin.
                ´We drove into town in Olli's FATHER´s car, too.´

       e.   Me ajettiin Ollin isän autolla**kin** kaupunkiin.
                ´We drove into town in Olli´s father's CAR, too.'

       f.   Me ajettiin Ollin isän autolla kaupunkiin**kin**.
                ´We drove into town, too, in Olli´s father's car.'

(37)   a.   **Te**kin puhutte siitä   vanhasta kirjasta.
                you-too talk   that-ABL old-ABL book-ABL
                'You, too, are talking about that old book.'

       b.   Te puhutte**kin** siitä vanhasta kirjasta.

       c.   Te puhutte siitä**kin** vanhasta kirjasta.

       d.   Te puhutte siitä vanhasta**kin** kirjasta.

       e.   Te puhutte siitä vanhasta kirjasta**kin**.

Just like the clitic –*ko*, -*kin* can attach to a category other than the focused category. (38a,b,c) all have the same interpretation, i.e. narrow scope on *Olli*.

(38)   a.   Me ajettiin OLLIN**kin** isän autolla kaupunkiin.

       b.   Me ajettiin OLLIN isän**kin** autolla kaupunkiin.

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[10] It cannot adjoin to the negation, presumably because the negation is itself a focusing category.
(i)   *Me ei-kään ajettu Ollin isän   autolla   kaupunkiin.
         we not-KIN drove Olli's father's car-ADE town-INE

c.   Me ajettiin OLLIN isän autolla**kin** kaupunkiin.

'We went into town in OLLI's father's car, too.'

Just as in the case of –*ko*, generalisation (26), reformulated to apply to *-kin* ('Focus must precede –*kin*'), states a necessary but not sufficient condition on the distribution of –*kin* in relation to focus. It accounts for (39a,b,c), for example, but not for (39d).
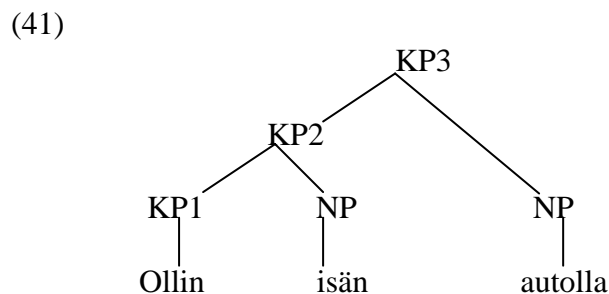
(39)   a.   *Me ajettiin Ollin**kin** ISÄN autolla kaupunkiin.

b.   *Me ajettiin Ollin**kin** isän AUTOLLA kaupunkiin.

c.   *Me ajettiin Ollin isän**kin** AUTOLLA kaupunkiin.

d.   *Te puhutte SIITÄ vanhasta**kin** kirjasta.

Instead, the right generalisation is (27), repeated here as (40) (and reformulated to apply to –*kin*):

(40)   *-kin* must c-command Focus.

As indicated by the freedom of placement of –*kin*, there is little reason to think that this clitic is merged as a sentential focus head in some fixed position, attracting a sentential constituent to its vicinity, as is arguably the case with focus adverbs such as *too*, *even*, *only*, etc. in English, for example (see Kayne 1998). Instead, it looks like the clitic can merge (almost) anywhere in a tree, as long as it c-commands a [Foc] feature.
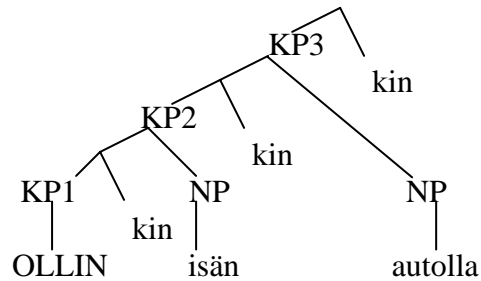
Take (41) to be the rough structure of *Ollin isän autolla* 'in Olli's father's car':

(41)

```
                              KP3
                      _____
                  KP2                        NP
              _____                        |
          KP1          NP            NP
           |            |             |
         Ollin         isän         autolla
```

Assume the clitic can adjoin to any of these categories: KP1, KP2, KP3, the NP *isän*, or the NP *autolla*. Take the case where KP1 is focus, realized by focus stress. Then the clitic can be
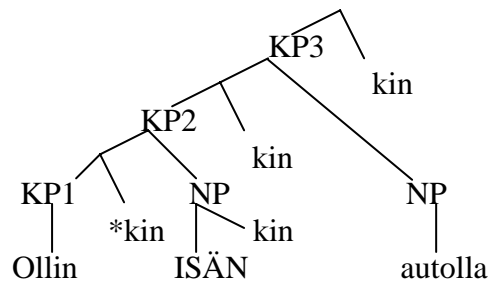
adjoined to KP1, KP2, or KP3, spelled out as a clitic on *OLLIN*, *isän*, and *autolla*, respectively. In all three positions the clitic c-commands the focused category.
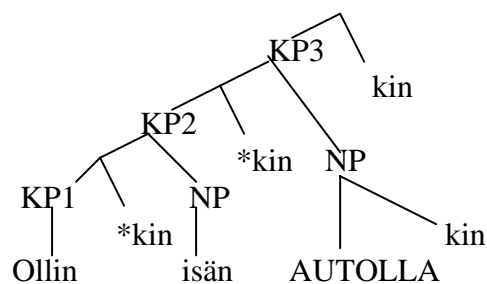
(42)

```
                          KP3
                         /   \
                        /     kin
                    KP2
                   /   \
                  /     kin
              KP1        \
             /   \   NP           NP
            /   kin  |            |
         OLLIN     isän        autolla
```

Take the case where the NP *isän* is narrowly focused. In this case *–kin* can be adjoined to KP2 or to the NP *isän* (cliticized to *isän* in either case) or to KP3 (cliticized to *autolla*). It cannot be adjoined to KP1, by hypothesis because in that position it does not c-command the focus (this is why (39a) is ill-formed).

(43)

```
                          KP3
                         /   \
                        /     kin
                    KP2
                   /   \
                  /     kin
              KP1        \
             /   \   NP           NP
            /  *kin / \ kin       |
         Ollin    ISÄN         autolla
```

Finally, if the NP *autolla* is narrowly focused, the clitic can be adjoined to that NP or to KP3 (cliticized to *autolla* in both instances), but not to KP1 or KP2, where it does not c-command the focus (this is why (39b,c) are ill formed).
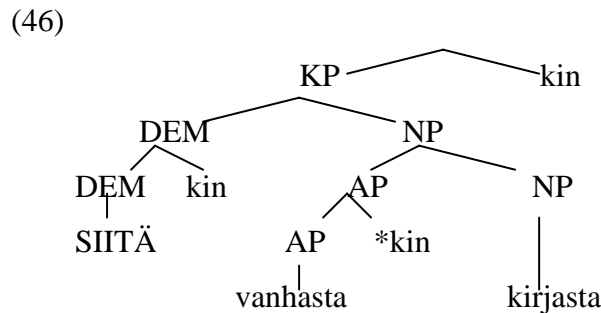
(44)

```
                          KP3
                         /   \
                        /     kin
                    KP2
                   /   \
                  /   *kin  NP
              KP1       /  \
             /   \  NP     \
            /  *kin |       \
         Ollin    isän   AUTOLLA  kin
```

Take (45) to be the rough structure of *siitä vanhasta kirjasta* '(about) that old book'
(19a,b,c):

(45)

```
              KP
        DEM        NP
         |       AP     NP
       siitä     |       |
             vanhasta  kirjasta
```
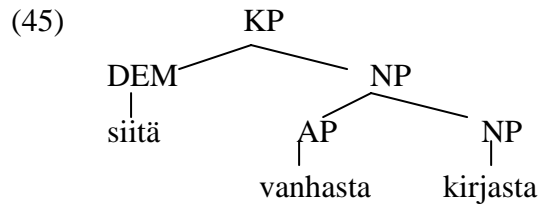
Assume narrow focus on the demonstrative: Then *–kin* can be adjoined to DEM or the KP,
but cannot be adjoined to the AP, by assumption because it would then not c-command
focus.

(46)

```
              KP          kin
         DEM          NP
       DEM   kin    AP      NP
        |         AP   *kin   |
      SIITÄ       |         kirjasta
              vanhasta
```

Finally, as the reader can verify for himself, with narrow focus on the AP, *-kin* can be
adjoined to the AP or to KP, but not to the demonstrative, as it would then not c-command
the AP. And with narrow focus on the NP *kirjasta*, *-kin* must be adjoined to KP or to the NP
(cliticized to *kirjasta* in both cases), but not to AP or the demonstrative, since it would then
not c-command the focused NP.

The generalisation (27) applied to *-kin* is formally accounted for if *–kin* has an
unvalued [uFoc] feature which needs to enter an Agree-relation with a valued [Foc] feature.
This has no effect on the position of the focused category (no movement is necessary), or of
any bigger phrase containing the focused category and *–kin*. What it does is determine the
interpretation: the scope of *-kin* is restricted to the scope of [Foc].[11] Consider the derivation
of (38b), for example.[12]

---

[11] The scope of [Foc], in turn, is determined by how high [Foc] projects from the terminal node that it
enters the derivation with; see Selkirk (1995).

[12] The derivation of possessive phrases is actually more complex than this, but not in ways which compromise
the analysis of *–kin* and Focus assumed here. The

(47)

```
              /\
             /  \
           NP    -kin
          /  \   [uFoc]
        KP    N
        |     |
      Ollin  isä
      [Foc]
```
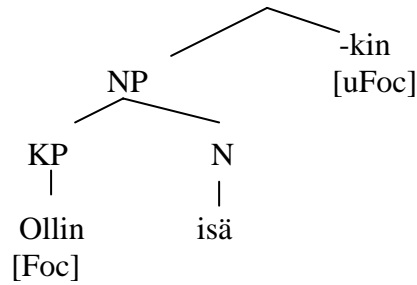
Olli is assigned the Focus feature in the Numeration (the set of lexical items out of which the sentence is constructed). The Numeration also contains the focus clitic *–kin*, which has a [uFoc] feature, and therefore must be merged where it locally c-commands a [Foc] feature. It could merge with the KP (as in (38a)), but it can also merge with the NP made up of the possessor and the possessee noun. In either case the [uFoc] feature is valued by [Foc].[13] A third alternative is delaying merge of *–kin* until an even larger phrase is constructed (as in (38c)).

This suggests an alternative theory of *–ko*, call it Theory 2: Like *–kin*, the clitic *–ko* has a [uFoc] feature, which means that it must be merged in a position where it locally c-commands a category with [Foc]. This would be (almost) the only condition on merge of *–ko*. That is to say, *-ko* can be merged with a noun or adjective or KP or NP, etc. before that category is merged with a sentential constituent. However, unlike *–kin*, *-ko* must then move to the edge of the sentence. The reason for this is that *–ko* is a question clitic as well as a focus clitic. Thus, in addition to the feature [uFoc] (which it shares with *–kin*), *-ko* has a feature [Q], or, as I shall label it from now on, [WH], an interpretable, valued feature. I then assume that questions have an unvalued WH-feature, paired with an EPP-feature, in the C-domain, and this triggers movement of *–ko*, pied-piping as big a phrase as required for convergence. As suggested by the labelling, this movement would, in fact, be a special case of wh-movement. This predicts that we might at least occasionally find *-ko* in situ, perhaps typically in echo questions, which does indeed occur, although not frequently.

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complex structure is more obvious in the case of pronominal possessors, when the construction includes a possessive suffix as well as a genitive-marked possessor.

[13] '[uFoc] being valued by [Foc]' can be taken to mean that the lexical content of the word encoding [Foc] is copied onto [uFoc], yielding something like [Foc: Olli] as a feature of *–kin* in this case, effectively as if the focused item underwent covert movement to *–kin*. See Roberts (2007) for a theory of incorporation/head movement as Agree.

(48)   a.   Ajatus   oli se-**kö** että aloitetaan kysymyksistä?

                        thought was it-Q that start-1PL questions-ELA

                        'The idea was that we would start with the questions, was it?'

                        (based on Hakulinen & al. (2004:160)

        b.   Se   puhui meidän-**kö** lapsista,   vai teidän?

                        she talked our-Q   children-ELA or your

                        'She talked about OUR children, or yours?'

That is to say, in questioned focus constructions -*ko* is a probe in relation to the feature [Foc], and a goal in relation to the [uWH]-feature in C, which is coupled with an EPP-feature triggering internal merge of the goal.

       There is one case where –*ko* is unequivocally a wh-morpheme, that is in construction with *monta* 'many', *paljon* 'much', and *kauan* 'long (time)' as an alternative to the free wh-words *kuinka* or *miten*, both 'how'.

(49)   a.   Monta**ko** lasta   teillä   on?

                        many-WH children you-ADE are

        b.   Kuinka/miten monta lasta   teillä   on?

                        how   /how many children you-ADE are

                        'How many children do you have?'

        c.   Paljon**ko** se maksaa? / Kauan**ko** sinä aiot   viipyä?

                        much-WH it costs   / long-WH you intend stay

        d.   Kuinka paljon se maksaa?/ Kuinka kauan sinä aiot viipyä?

                        how   much it costs   / How   long you intend stay

                        'How much is it?   / How long do you intend to stay?'

The claim made here is that –*ko* is always a wh-morpheme, the spell-out of a [WH] feature. However, it is also a focus clitic, like -*kin*. Thus, in questioned focus constructions, it is involved in two asymmetric relations, one a relation with the category with focus, typically realized as focus stress, where –*ko* must locally c-command the focused category in order to get valued by it, the other a relation with a question feature with sentential scope, where –*ko* must be locally c-commanded by that feature. The latter relation requires movement/internal merge of –*ko* to the left edge, pied-piping as much as is required for convergence.

6.   A difference between *–ko* and *–kin* leading to Theory 3

Theory 2 predicts that *–ko* will have exactly the same syntactic distribution as *–kin*, except for the movement to the left edge. This prediction is falsified by the following facts, though: In KPs consisting of a genitive possessor and an adjective, *-ko* cannot be merged with the adjective.

(50)   *Ollin vanhalla**ko**   autolla. te   ajoitte?
          Olli's old-ADE-WH car-ADE   you drove
         Intended reading: Was it Olli's OLD car that you went with?'

The clitic *–kin*, on the other hand, can be merged with an adjective even when it is preceded by a genitive possessor. As predicted, it will then strictly have scope over the adjective, as the adjective is all that it c-commands.

(51)   a.   Me ajettiin Ollin VANHALLA**kin** autolla.
                we drove   Olli's old-ADE-kin   car-ADE
                'We went in Olli's OLD car, too.'
         b.   *Me ajettiin OLLIN vanhalla**kin** autolla.
         c.   *Me ajettiin Ollin vanhalla**kin** AUTOLLA.

The ungrammaticality of (50) suggests that *–ko* must be preceded by a constituent. This, in turn, implies that the placement of *–ko* in relation to the other constituents of the complex KP is a result of movement, after all, moving a constituent to the spec of *–ko*. Merging *–ko* with an adjective is not a problem as such, if the adjective is KP-initial, or, as we have seen, if it is preceded only by a demonstrative.

(52)   Vanhalla**ko**   autolla   te ajoitte?
          old-ADE-WH car-ADE you drove
         'Did you drive an old car?'

On the other hand, in the latter case *–ko* is, apparently, preceded by a non- constituent.

(53)   Siitä   vanhasta**ko**   kirjasta   te   puhutte?
         that-ELA old-ELA-WH book-ELA you talk

'Are you talking about that OLD book?'

For some reason, -*ko* can be preceded by a demonstrative plus adjective or quantifier, but not a possessor plus adjective or quantifier.[14]

(54)   a.   Tämän toisen**ko** ystävän autolla te tulitte?

   this   other-WH   friend's car   you came

   'Did you come with this other friend's car?'

   b.   *Ollin toisen**ko** ystävän autolla te tulitte?

   Olli's other-WH friend's car   you came

   c.   Näitten epäselvien**kö** ohjeitten   mukaan   te aiotte yrittää ajaa?

   these unclear-WH   instructions according you intend try   drive

   'Do you intend to drive according to these unclear instructions?'

   d.   *Hänen epäselvien**kö** ohjeitten   mukaan   te aiotte yrittää ajaa?

   his   unclear-WH   instructions according you intend try   drive

Furthermore, in a series of attributive adjectives, -*kin* can be cliticised to any of them, with corresponding narrow scope, but –*ko* can only be cliticised to the initial one.

(55)   a.   Iso LÄMMIN**kin** olut on parempi vaihtoehto kuin pieni.

   big warm-KIN   beer is better   alternative than small

   'Even a big WARM beer is a better alternative than a small one.ä

   b.   *Iso LÄMMIN**kö** olut on sinun mielestäsi   nyt paras vaihtoehto?

   big warm-WH   beer is your opinion-ELA now best alternative

   Intended : 'Is a big WARM beer the best alternative now, do you think?'

   c.   ISO**ko** lämmin olut on sinun mielestäsi nyt paras vaihtoehto?

   'Is a BIG warm beer now the best alternative, do you think?'

This indicates that there is something special about demonstratives.

   The proposal that –*ko* is essentially a wh-morpheme is consistent with merging –*ko* as a determiner of KP.

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[14] Ordinal quantifiers inflect like adjectives in Finnish.

(56)   [-ko [$_{KP}$ [$_{KP}$ [$_{KP}$ Ollin] isän] [$_{NP}$ autolla]]]

Unlike other determiners, including other wh-determiners, *-ko* has a [uFoc] feature coupled with an EPP-feature, which probes the KP for a matching valued feature [Foc], and triggers movement/internal merge of that feature, pied-piping a subconstituent of the KP in the process, with optionality regarding the the size of the pied-piped constituent. (57) would be the case where the [Foc] feature is assigned to the name *Olli*, the innermost argument.

(57)   a.   [OLLIN] ko [$_{KP}$ [$_{KP}$ <[$_{KP}$ Ollin]> isän [$_{NP}$ autolla]]

        b.   [OLLIN isän] ko [$_{KP}$ <[$_{KP}$ [$_{KP}$ Ollin] isän]> [$_{NP}$ autolla]]

        c.   [OLLIN isän autolla] ko <[$_{KP}$ [$_{KP}$ [$_{KP}$ Ollin] isän] [$_{NP}$ autolla]]>

-ko also has a [WH] feature. When the '-*ko*-phrase' is merged as an argument in a sentence, -*ko* will be a goal for a [uWH] feature in C, and undergo internal merge with CP, pied-piping the entire –*ko*-phrase.

(58)   [$_{CP}$ [Ollin isän autolla**ko**] C [te ajoitte <Ollin isän autollako>]]

The element pied-piped with the [Foc]-feature to spec,-*ko* must obviously be a constituent, though, which excludes pied piping, for example, a genitive specifier plus an attributive adjective, stranding the head noun, as in (50), or two attributive adjectives, as in (55b). Note that this means that we cannot extend this analysis of –*ko* to –*kin*, as –*kin* may be cliticised to an attributive adjective preceded by a genitive specifier or another adjective. For –*kin* we would maintain the analysis articulated in section 5.
        Assume a demonstrative may be merged either below or above –*ko*.

(59)   a.   [-ko [$_{KP}$ siitä [$_{NP}$ vanhasta [$_{NP}$ kirjasta]]]]
        b.   [$_{KP}$ siitä [-ko [$_{NP}$ vanhasta [$_{NP}$ kirjasta]]]]

In that case the system will derive both (59a), from (58a) by movement of the demonstrative, and (59b), from (58b), by movement of the adjective.

(60)   a.   siitä**kö** vanhasta kirjasta

        b.   siitä vanhasta**ko** kirjasta

As the movement presupposes Agree between the [uFoc] feature of *–ko* and a Foc feature, with concomitant movement of the [Foc]-marked item, we predict correctly that (60a) must have narrow scope on the demonstrative, and that (60b) cannot have narrow scope on the demonstrative.

(61)   a.   SIITÄkö vanhasta kirjasta

        b.   *siitäkö VANHASTA kirjasta

        c.   siitä VANHASTAko kirjasta

        d.   *SIITÄ vanhastako kirjasta

(61d) cannot be derived from (59a), as *siitä* and *vanhasta* do not make up a constituent, and it cannot be derived from (59b), since *–ko* with the [uFoc] feature does not c-command the [Foc]-marked demonstrative.

      This theory, call it Theory 3, is not without potential problems. To start with, like Theory 1, it presupposes movement out of a left branch, violating the time-honoured Left Branch Condition, in a case like (57a). But at least the left branch is not itself the result of A-bar movement, the way it is in (30) under Theory 1.

      Another problem, or challenge, is the possibility of focus on the entire KP in (53) and (54), most naturally rendered with stress on each of the constituents, the demonstrative, the adjective, and the noun.

(62)   NÄITTEN EPÄSELVIEN**kö** OHJEITTEN mukaan te ajoitte.

       these   unclear   WH instructions along   you drove

       'Did you drive following THESE UNCLEAR INSTRUCTIONS?'

It does not seem to be the case that the demonstrative and the adjective together form some sort of an exceptional constituent, excluding the noun. If they did, we would expect narrow focus on the demonstrative to be possible, the way the possessor can be narrowly focused in (12), repeated here as (63).

(63)   OLLIN isänkö autolla te ajoitte?

    'Was it OLLI's father's car that you drove?'

But this is not the case, as just discussed. I will leave the case of (62) for future research.

    The claim is that –*ko* is the spellout of a WH-feature of a determiner, like the more familiar wh-words.

(62)   mikä kirja, missä   kirjassa,   kenen kirja

    which book , which-INE book-INE, whose book

But –*ko* does not have exactly the same relation to other constituents of the noun phrase as the wh-words. In particular, they have complementary distribution with demonstratives, which –*ko* does not have, as we have seen.

(63)   *tämä mikä kirja, * mikä tämä kirja

     this   which book

And in fact -*ko* can even co-occur with some wh-words (in colloquial Finnish).[15]

(64)   Mistäkö   talosta   hän tuli?

    which-ELA-KO house-ELA he   came

    'Which house did he come from?'

Some of the wh-words include what is probably a cognate of –*ko* in their morphological structure: *mikä* 'what', *kuka* 'who', *kuinka* 'how'. This suggests an analysis of wh-phrases as made up of –*ko* (overtly or covertly) plus another element specifying the range of the phrase. This might provide explanations of (63) as well as (64). I will leave this idea for future research, though.

---

[15] The more precise structure of KP becomes important under Theory 3. The fact that the demonstrative which, by hypothesis, is externally merged outside –*ko* in (59b) is still marked for elative case (also spelled out on the adjective and the noun) indicates that the valued case feature must be externally merged outside the demonstrative as the highest functional head of the KP, triggering agreement on the specifiers and the head noun (see Nikanne 1993).
(i)   ELA [se [-ko [vanha [kirja]]] → siitä vanhastako kirjasta

8.   *-ko* in unmarked questions

Unmarked yes/no-questions such as (1b,c,d), here represented by (1b), pose a challenge for Theories 2 and 3.

(65)   Ajoi-**ko** Olli illalla   kaupunkiin?

          drove-Q Olli evening-ADE town-ILL

          'Did Olli drive into town in the evening?'

The verb may be narrowly focused with this word order ('Did Olli DRIVE into town, or did he walk?'), but need not be. A possible analysis is that *–ko* is merged directly with C, attracting the raised finite verb or negation as a default option. However, in Holmberg (2003) I proposed that a simple YNQ such as (65) is derived by first moving the finite verb to a Polarity head, by hypothesis the highest head in the IP domain, and then to the C-domain. There are three different values of Polarity: affirmative, negative, and unspecified (affirmative or negative). The last one I labelled WH-Pol. I argued in Holmberg (2003) that this is the category that moves to C in YNQs under 'Subject-Aux inversion' in English, triggered by the same feature that triggers wh-movement (the feature [uWH], in present terms). I also suggested that Finnish *-ko*, in (65), is a spell-out of WH- Pol moved to C. This analysis is by and large compatible with the analysis of *–ko* in questioned focus constructions argued for here.

It might be objected, that *–ko* is not in construction with a [Foc] feature in (65), comparable to [Foc] in the contrastive focus constructions discussed earlier. The simplest way to accommodate this objection is to postulate two morphemes *–ko*, one with and one without a [uFoc] feature. A more interesting idea is the one expounded in Holmberg (2001, 2007), according to which unmarked yes/no-questions such as (65) are questioned contrastive focus constructions, too, narrowly focusing *polarity*, encoded in the category POL and hosted by the finite verb in a case like (65). For reasons of space a more detailed integration of these two theories will have to wait.

9. Conclusions

The initially appealing idea that the question clitic *–ko* is syntactically equal to the focus clitic *–kin* plus a WH-feature was shown to be empirically untenable. Instead, *–ko* was shown to have a more restricted syntactic distribution than *–kin*, always merging with the maximal

KP, except optionally below a demonstrative, while *–kin* can merge with any subconstituent of a KP. But apart from this, the generalisation holds that *–ko* is syntactically equal to *–kin* with an added WH-feature. Like *–kin*, *-ko* has a [uFoc] feature, which means it must be merged in a position where it can enter an Agree-relation with [Foc], that is, it must locally c-command a category assigned [Foc], which may be a word, in PF spelled out with focus stress, or a larger phrase assigned [Foc] by projection. This allows for a certain freedom, though, in the placement of *–ko* as well as *–kin*, as long as the Agree-relation can be established, [uFoc] receiving a value. The WH-feature that *–ko* has means that it co-occurs with a question feature in C, more precisely a [uWH]-feature coupled with an EPP-feature, which will probe for the [WH]-feature of *–ko*, and trigger internal merge of *–ko* with CP, pied-piping as much material as required for convergence.

The hypothesis that *–ko* is merged with the entire KP, triggering internal merge of a [Foc]-marked constituent, with optional pied-piping, explains why what precedes *-ko* must be a constituent (which is not the case for *–kin*). The one exception, the sequence demonstrative-adjective, was accounted for by postulating that a demonstrative could optionally merge outside *–ko*.

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