Verb Raising in Questions[1]

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1 Introduction

This paper addresses the fundamental question of why syntactic movement takes place, and a new approach to movement is proposed. Under the Minimalism approach (Chomsky 1993), syntactic movement is motivated by feature checking. In particular, *strong* features give rise to movement, whereas the corresponding *weak* features fail to motivate movement. (It is often assumed that when overt movement does not take place, abstract movement at LF does take place. However, in this paper we are only concerned with overt, visible syntactic movement.) Thus, strong inflectional features may give rise to verb raising, as in French, while weak features result in lack of (visible) verb raising, as in English (cf. Pollock 1989).

Ideally, independent morphosyntactic evidence exists for positing strong vs. weak features for a particular element in a particular language, as is the case with verb raising in English (where weak syntactic features of the verb correlate with poor inflectional morphology) vs. French (where the inflectional paradigm is richer than in English). In the absence of morphological (or some other type of) independent evidence, positing strong or weak features is stipulative. Unfortunately, beyond certain instances of verb raising, morphological evidence for strong/weak features has not been obviously available. For example, there is no known morphological correlate of V-to-C raising which would distinguish V-to-C languages (such as German and Swedish) from V-to-I languages (such as French and Icelandic). Similarly, a morphological diagnostic of WH-movement languages (e.g. English) vs. WH-in-situ languages (e.g. Japanese) has not been determined (cf. Cole & Herman 1994 for some discussion).

In this paper I wish to pursue an approach to overt syntactic movement – specifically, as applied to the verb raising data in Finnish and English questions – which makes different morphosyntactic predictions when compared to the feature-based approach. In a sense, the proposed system is the reverse of strong/weak feature approach: rather than movement taking place in the presence of strong features, movement typically occurs when there is a total lack of features, i.e. when the landing site is empty. Except in the case of bound morphemes requiring a host, the presence of features (regardless of their "strength") blocks movement. Under this approach, movement is motivated not by feature checking but by the requirement that syntactic positions be filled, phonetically or abstractly.

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[1]Thanks to the audience at the Penn Linguistics Conference for useful comments, in particular to Norbert Hornstein.

Under Minimalism, two distinct checking approaches to movement have been developed: first, the *Greed*-based approach of Chomsky (1993), according to which elements move to satisfy their own requirements, and second, the *Enlightened Self-Interest* (ESI) approach of Lasnik (1995), according to which elements move to satisfy either their own requirements *or* those of some other element. In terms of satisfaction of requirements, the approach proposed here represents the third logical possibility, what we might call *Altruism*: elements move to satisfy the requirements of some other element (or position). After a presentation of the altruistic theory of movement, in the remainder of the paper the three approaches to movement will be evaluated with respect to verb raising in questions.

2   The Altruistic Licensing Approach

2.1   Background

The approach pursued here may be referred to as the *Licensing Approach* to syntactic movement, since it is based on the idea that in order for a projection to be licensed, the positions in it must be filled. When applied to the movement domain, the idea is that elements move in order to fill an otherwise empty position. An early version of this idea was developed in Vainikka (1989) to account for A-movement in Finnish, as shown in (1).[2]

(1)   a.   Liisa   vei hänet   kotiin.
          Liisa-NOM took him/her-ACC home

          'Liisa took him/her home.'

      b.   Hänet   vietiin   t kotiin.
          him/her-ACC was-taken   home

          'He/she was taken home' (lit. 'Him/her was taken home')

Example (1b) shows that the Accusative object NP raises to the preverbal position, preceding the passive verb. Thus, Finnish NP-movement presents a problem for the traditional Case-based movement account of A-movement (that NPs move in order to get Case; cf. e.g. Chomsky 1981). In the Finnish passive, Case is *not* absorbed, and yet the NP typically moves in examples such as (1b). Alternatively, instead of the object NP, some other (oblique) argument of the verb can raise to the Spec(IP)[3] position in the Finnish passive. Crucially, however, *some NP must raise*, and this movement cannot be explained based on lack of Case (see Vainikka 1989; Ch.2 for further discussion).

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[2]The version proposed in Vainikka (1989) was too strong in that it required all positions to be *overtly* filled, at some level of representation.

[3]For expository purposes, I refer to the traditional Spec(IP) position, rather than the various IP-level specifier positions proposed in Pollock (1989). This simplication does not affect the points made in this paper.

That is, unlike in English, lack of Case is not a sufficient reason for why NPs move in Finnish.[4] In fact, even in English the Case-based motivation for A-movement does not seem to suffice, as pointed out by Baltin & Postal (1996:143) for examples such as (2a):

(2)   a. *It was argued for this proposal by Fred.

       b. This proposal was argued for t by Fred.

In the grammatical version (2b), the object of the preposition *for* must raise to the Spec(IP) position, although it would be assigned Case in (2a) even in the absence of A-movement. This turns out to be a problem for the traditional movement analysis, given that Baltin & Postal provide compelling arguments against reanalysis of the P *for* with the verb *argued*.

A similar situation obtains in the Finnish raising constructions, as exemplified in (3). Regardless of case marking on the NP, it moves to the Spec(IP) position of the raising verb *näyttää* 'seem'.

(3)   a. Markuksella on nälkä.
           Markus-ADE is hunger

           'Markus is hungry' (lit. 'With Markus is hunger')

       b. Markuksella näyttää [t olevan nälkä].
           Markus-ADE seems   be-INF hunger

           'Markus seems to be hungry' (lit. 'With Markus seems to be hunger')

The descriptive generalization – based on examples such as (1,3) and other relevant data discussed in Vainikka (1989) – is that the Spec(IP) position must be filled in Finnish.[5]

Speas (1994) has recently developed an approach to licensing projections, according to which *either* the head *or* the specifier of a given projection must be filled, either phonetically or semantically. This approach was designed to explain correlations between null subjects and verb morphology, crosslinguistically. Vainikka & Levy (1995) revised Speas' proposal in order to allow an explanation for the mixed null subject patterns of Finnish and Hebrew (with *pro*-drop in 1st and 2nd person, but not in 3rd), by conjecturing that *both* the head and the specifier must be filled. Based on Vainikka & Levy (1995), let us now define the following licensing principle:

(4)   Principle of Obligatory Occupant Licensing (POOL): An XP can only be projected if both the head X and the specifier Spec(XP) contain some syntactic material, whether phonetically realized or not (i.e. abstract semantic features).

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[4]A Case-based analysis of the Finnish passive works only if Abstract Case is totally divorced from morphological case. However, if such a move is made, Case-based movement becomes stipulative.

[5]See also Vainikka & Young-Scholten (1994) where we proposed the so-called 'Full House Principle' according to which the Spec(IP) position must be filled, in order to account for developmental data from adult second language acquisition of German.

2.2   Accounting for Movement under Altruism

Before turning to the main topic of this paper (an instance of head movement), let us briefly consider how the principle in (4) would account for various types of movement.[6] These topics will be covered in more detail in Vainikka (in preparation).

First, consider A'-movement into the Spec(CP) position. In languages with overt WH-movement, the WH-phrase moves to fill the Spec(CP) position, whereas in WH-in-situ languages, an abstract Operator occupies the Spec(CP) position (cf. Aoun & Li 1993; Cole & Hermon 1994). In either situation, the Spec(CP) position is filled by something, an overt WH-phrase or an abstract Operator. Similarly, in the V2 (matrix clause) construction in languages such as German, some XP moves to Spec(CP), thereby filling the position.[7] The lack of such movement in embedded declaratives in both V2 and non-V2 languages suggests that the Spec(CP) is filled by an abstract Operator in embedded clauses. Similarly, the lack of A'-movement in Y/N questions indicates that the Spec(CP) position is filled by some kind of an Operator.[8]

Secondly, *POOL* explains why an XP raises to the Spec(IP) position in the Finnish and English examples (1-3), as well as subsuming the Extended Projection Principle (Chomsky 1981) according to which sentences (in the English-type languages) require a subject (see also Vainikka & Levy 1995). The EPP now boils down to a more general principle requiring the Spec(IP) position to be filled, although languages vary in exactly what type of element may occur in the Spec(IP) position.

Third, under this approach there are three possible scenarios with respect to each IP-level functional head: (i) a bound element is base-generated. resulting in head raising due to the Stray Morpheme Filter (cf. e.g. Lasnik 1981); (ii) a free morpheme is base-generated, and no head raising occurs (e.g. the TMA markers of Creole languages, and perhaps English modals and/or auxiliaries); (iii) the position is base-generated empty, and a lower head must raise to fill the position (e.g. verb raising in inflectionally poor languages such as Swedish).[9]

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[6]It should be noted that this approach does not readily extend to true adjunction which creates a new syntactic position, such as in some analyses of Scrambling and Topicalization. However, given the proliferation of functional projections, it is possible that instances of movement that have been taken to involve adjunction actually involve substitution in an existing syntactic position, at least in the cases of leftward movement up the tree. This approach is even less relevant for downward movement; cf. however Collins (1994) according to whom downward movement is disallowed under Economy of Derivation.

[7]A similar suggestion for V2 languages was made by Koopman (1984:197). For non-V2 languages the present approach would suggest that matrix clauses do not project a CP projection.

[8]In the absence of independent evidence, positing an abstract Operator is of course as stipulative as positing strong vs. weak features without any morphosyntactic evidence. However, see Vainikka (in preparation) for independent evidence for an Operator in the Spec(CP) of Y/N questions.

[9]The lack of verb raising in English appears to be the single most difficult phenomenon to account for under the present approach, unless abstract auxiliary elements can be posited in the English functional heads above the V; cf. Vainikka (in preparation) for discussion.

3   Verb Raising in Yes/No Questions

The verb raising data to be discussed below is summarized in Table 1.

Table 1. Does the verb raise to C?

	English	Finnish
matrix WH	yes	no
embedded WH	no	no
matrix Y/N	yes	yes
embedded Y/N	no	yes

Both in English and Finnish, the verb raises to C in matrix Y/N questions, as exemplified in (5). In Finnish, the raised verb is suffixed with the Y/N question particle *-kO*, which is a second position clitic base-generated in C (Vainikka 1989) and which cliticizes to any element to its left (F.Karttunen 1975).

(5)   a.   Did Mary find the book?

  b.   Löysikö Maija kirjan?
       found-Q Maija book

       'Did Maija find the book?'

Let us now consider how the various approaches to movement deal with verb raising in Yes/No questions.

3.1   Problems with Greed

Although the Greed-based approach to movement has been challenged (even in Chomsky 1993), it seems worthwhile to compare it to the two other candidates for explaining syntactic movement, given its simplicity. As applied to the case at hand, the verb in Yes/No Questions would have to raise to C in order to satisfy some requirement of its own.

This approach immediately runs into two problems. First, something other than the verb can raise to the sentence-initial position in Finnish to form a Yes/No Question, as shown in (6):

(6)   a.   Maijako löysi kirjan?
           Maija-Q found book

       'Was it Maija that found the book?'

  b.   Kirjanko Maija löysi?
       book-Q   Maija found

       'Was it a book that Maija found?'

The examples in (6) presumably involve fronting a maximal projection to Spec(CP) – such as the subject NP in (6a) or the object NP in (6b) – to which the question particle *-kO* cliticizes.[10] If, as predicted by Greed, verb raising to C is crucial in a Yes/No question for checking some features of the verb, examples such as (6) should not be possible.

The second problem with a Greed-based explanation is that even if nothing else raises to C, the verb in a Yes/No Question need not raise to C, as shown in the embedded questions in (7):

(7) a. Peter asked if Mary had found the book.

   b. Pekka kysyi, josko Maija oli   löytänyt kirjan.
      Pekka asked if-Q Maija had found   book

      'Pekka asked if Maija had found the book.' (spoken Finnish)

   c. Pekka kysyi, oliko   Maija löytänyt kirjan.
      Pekka asked had-Q Maija found   book

      'Pekka asked if Maija had found the book.' (spoken or written Finnish)

In English, and in some colloquial varieties of Finnish (as in (7b)), a complementizer occurs in the C position of an embedded Yes/No Question, again showing that the verb need not raise to C. In Standard Finnish and many varieties of spoken Finnish, however, the verb does raise to C (cf. (7c)), just as in matrix Yes/No Questions.

3.2 Enlightened Self-Interest

Accounting for Finnish Yes/No Questions using Lasnik's approach is straightforward, and this analysis will in fact also be adopted under the Altruistic approach.

In Finnish, the Yes/No Question Particle *-kO* is a bound morpheme, and thus cannot be stranded. Each of the three processes described above allow this morpheme to be cliticized onto something: the raised verb (as in (5b) and (7c)), a raised XP (as in (6a,b)), or a complementizer (as in (7b)). Thus, given the requirement that bound morphemes be supported by another element (the Stray Morpheme Filter), the bound nature of *-kO* would explain verb raising in the Finnish Yes/No Questions, given Lasnik's Principle of Enlightened Self-Interest. If no XP is fronted (and no complementizer is inserted), the verb must be fronted in order to support the question particle. In Standard Finnish, this holds both in matrix questions (5b) and in embedded questions (7c).

Extending the Finnish analysis to English is fairly straightforward. However, a direct extension to English involves positing an *abstract bound Yes/No Question morpheme*

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[10]An affirmative reply to such questions involves either repeating the questioned element (e.g. *Kirjan* 'book' as a reply to (6b)) or using an affirmative word such as *niin* 'so'. A negative reply typically involves the negative verb, optionally followed by the questioned element, and possibly followed by a correction (e.g. *Ei [kirjaa] [vaan sanomalehden]* 'not [book] [but newspaper]').

equivalent to the Finnish *-kO*. Given such a morpheme, the English verb raises to C in Yes/No Questions to support the abstract clitic in matrix clauses,[11] whereas in embedded clauses an overt complementizer hosts the abstract clitic, in a manner exactly equivalent to supporting the overt question morpheme in the Colloquial Finnish example (7b).

There may, of course, be other possible analyses of English verb raising under Lasnik's approach. Given the problems with a Greed-based analysis of English and Finnish Yes/No questions, the challenge is to come up with a plausible strong feature in C that needs to be checked, and which can be checked in English either by the verb (in matrix questions) or by a complementizer (in embedded questions). In Finnish, such a feature would either be checked by the question clitic *-kO*, or by the host of the clitic.

3.3 Altruistic Licensing

Under a licensing approach, no abstract Yes/No Question clitic needs to be posited for English, nor is a feature in C responsible for movement. In both English and Finnish, the C position must be filled in order for a CP to be projected, given the Principle of Obligatory Occupant Licensing (*POOL*) as defined in (4).

In Finnish, *POOL* is satisfied by having the C position be filled by the question clitic *-kO*. As under Lasnik's approach, this clitic requires a host, resulting in verb raising or XP raising. In English, C is filled by one of the Yes/No Question complementizers (*whether* or *if*) in embedded clauses. Since there is no corresponding complementizers in the matrix clause, the verb raises in order to fill the C position. Thus, *POOL* combined with the Stray Morpheme Filter explains verb raising in Yes/No Questions in both English and Finnish in an elegant and unified manner.

4 Verb Raising in WH-Questions

Turning now to WH-Questions: in Finnish, no verb raising to C occurs in WH-Questions (whether matrix or embedded), as exemplified in (8b,c), contrary to the English (8a):

(8) a. Where had Mary found the book?

    b. Mistä   Maija oli löytänyt kirjan?
       where-from Maija had found   book

      'Where had Maija found the book?'

    c. ?*Mistä   oli Maija löytänyt kirjan?
       where-from had Maija found   book

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[11]This is reminiscent of early transformational analyses of English questions according to which the verb is attracted to the front of the sentence by an abstract question element (Klima 1964; Katz & Postal 1964).

Let us consider how the three approaches to movement fare with the difference between English and Finnish in terms of verb raising in WH-Questions. Note that the lack of verb raising in matrix WH-Questions in Finnish indicates that verb raising to C cannot be a universal requirement for forming a normal WH-Question, and thus a language-specific explanation is called for to account for the English data.

4.1   Greed and V-to-C in WH-Questions

Could the English verb raising be due to Greed? Again, the fact that the verb does *not* raise in embedded WH-Questions, such as (9a), suggests that the verb is not required to move in order to form a WH-Question, even in English. In Finnish, the verb does not raise in embedded WH-Questions – as exemplified in (9b) – any more than it does in a matrix question.

(9)   a.   Peter asked where Mary had found the book.

      b.   Pekka kysyi, mistä   Maija oli l¨oytänyt kirjan.
            Pekka asked where-from Maija had found   book

         'Pekka asked where Maija had found the book.'

      If the verb were to raise to C in order to satisfy some requirement of its own (i.e. due to Greed) in (8a), its lack of movement in (9a) is unaccounted for. If Greed were responsible for the verb raising in the English matrix WH-Questions, the lack of raising in Finnish matrix WH-Questions would remain mysterious.

4.2   Lasnik's Approach and V-to-C in WH-Questions

As in the case of V-to-C raising in Yes/No Questions, Lasnik's principle of Enlightened Self-Interest can straightforwardly explain the lack of verb raising in Finnish WH-Questions. Recall that in Yes/No Questions there is a question clitic *-kO* which needs to be hosted, and verb raising occurs in order to support this bound morpheme. In WH-Questions there is no comparable WH-Question marker in Finnish, and thus no clitic in C requiring a host. Therefore, no verb raising takes place either in a matrix WH-Question or in an embedded WH-Question.

      Again, as in the case of Yes/No Questions, the Finnish analysis can be directly extended to English, but again an abstract question marker has to be posited in C. Since English has verb raising in WH-Questions, this abstract element must be a bound element, comparable to the Yes/No clitic *-kO* in Finnish. Under this analysis, verb raising occurs in matrix WH-Questions because the abstract clitic cannot be stranded in C.

      Since no verb raising occurs in embedded WH-Questions in English, this indicates that the requirement of the abstract WH-clitic to be hosted is fulfilled by some other means.

Given the system developed so far, it appears that an abstract WH-complementizer would have to be posited, equivalent to the overt Yes/No complementizers *whether/if*. That is, both an abstract complementizer and an abstract clitic would need to be posited for English WH-questions.

Alternatively, coming up with a feature in C that is responsible for verb raising in WH-questions is particularly challenging. Such a feature would have to be *strong* in the English matrix WH-questions, since verb raising takes place, and *weak* in the English embedded clauses as well as all WH-questions in Finnish – an undesirable situation. Let us finally consider the licensing approach.

4.3 The Licensing Approach and V-to-C in WH-Questions

Recall that under the *POOL* approach, no abstract elements needed to be posited for verb raising in Yes/No Questions in the two languages. However, in WH-Questions even the *POOL* approach requires positing some abstract material.

Since nothing overt fills the C position in Finnish WH-questions, the *POOL* approach suggests that an abstract morpheme fills that position, presumably an abstract WH-question particle equivalent to the Yes/No clitic *-kO*. In fact, there exists potential diachronic evidence for an overt WH-clitic in the C position in Finnish. Several of the WH-words in Finnish (though not all) contain the suffix *-kA*: *kuka* 'who', *mikä* 'what', *kuinka* 'how', and *koska* 'when'.[12] According to L.Hakulinen (1979:127-8, 236-7), the *-kA* suffix has historically been attached to various pronominal elements. An analysis of the relevant class of elements reveals that most of them are consistent with the hypothesis that *-kA* used to occupy the C position: it occurs at the end of WH-words, at the end of the relative pronoun (*joka* 'who'), and as a component of some complementizers.[13] It is thus possible that *-kA* was at some point an overt WH-Question marker, equivalent to the Yes/No marker *-kO*, and was subsequently generalized to other functions in the C position.

The diachronic evidence suggests that the abstract element in C is a bound morpheme, a clitic. However, since in WH-questions there is always a phonological host in the Spec(CP) position (the WH-phrase), the clitic is hosted by the WH-phrase and no verb raising takes place.

Finally, returning to the English WH-Questions: to analyze English verb raising in WH-Questions using the licensing approach, an abstract WH-Question Complementizer must be posited in order to account for lack of verb raising in embedded WH-Questions. Since matrix clauses have no such complementizer, the verb raises to fill the C position.

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[12]Synchonically this affix is semi-productive; in modern Finnish, it typically attaches to the negative auxiliary (e.g. *enkä* 'I won't') as an emphatic particle, or as carrying the meaning 'and' (cf. L.Hakulinen (1979)).

[13]The following complementizers have been formed with this affix: *sekä* 'both...(and)', *vaikka* 'although' and *jahka* 'when (dial.)'. The affix also occurs in the closed-class elements *ehkä* 'perhaps' and *saakka* 'until'.

The abstract WH-Complementizer is the WH-Question equivalent of the Yes/No complementizer *whether* and *if*.

5   Conclusion

To conclude, under the licensing approach the difference between English and Finnish verb raising boils down to Finnish having an overt Yes/No question clitic vs. English having a Yes/No question complementizer, *and* both languages have an abstract WH-equivalent of the overt Yes/No morpheme. Finally, the $POOL$-based analyses I have described are summarized in Table 2, along with the ESI-based analyses where the simple Finnish analyses are directly extended to English.

Table 2. Two approaches to verb raising in Finnish and English questions.

	$POOL$	ESI
Finnish:		
Y/N matrix	*-kO* fills C; verb raises to host clitic	verb raises to host *-kO*
Y/N embedded	-ditto-	-ditto-
WH matrix	abstract [+WH] clitic fills C; hosted by WH-phrase; no verb raising	no clitic to host; no verb raising
WH embedded	-ditto-	-ditto-
English:		
Y/N matrix	verb raises to fill C	verb raises to host abstract [+Y/N] clitic
Y/N embedded	*whether/if* fills C; no verb raising	*whether/if* hosts abstract [+Y/N] clitic; no verb raising
WH matrix	verb raises to fill C	verb raises to host abstract [+WH] clitic
WH embedded	abstract [+WH] complementizer fills C; no verb raising	abstract [+WH] complementizer hosts abstract [+WH] clitic; no verb raising

References

Aoun, J. & Y.A. Li (1993) Wh-elements in situ: Syntax or LF? *Linguistic Inquiry* 24:199-238.

Baltin, M. & P. Postal (1996) More on Reanalysis Hypotheses, *Linguistic Inquiry* 27:127-145.

Chomsky, N. (1981) *Lectures on Government and Binding*, Dordrecht: Foris.

Chomsky, N. (1993) A minimalist program for linguistic theory. In *The view from Building 20: Essays in linguistics in honor of Sylvain Bromberger*, ed. K.Hale & S.J.Keyser, Cambridge, MA:MIT Press.

Cole, P. & G. Hermon (1994) Is there LF WH-movment? *Linguistic Inquiry* 25:239-262.

Collins, C. (1994) Economy of Derivation and the Generalized Proper Binding Condition, *Linguistic Inquiry* 25:45-61.

Hakulinen, L. (1979; 4th ed.) *Suomen kielen rakenne ja kehitys* (The structure and development of the Finnish language). Helsinki: Otava.

Karttunen, F. (1975) Functional constraints in Finnish syntax, in *Papers from the Parasession on Functionalism*, ed. R.Grossman et.al., Chicago Linguistic Society.

Katz, J. & P. Postal (1964) *An Integrated Theory of Linguistic Descriptions*, Cambridge, MA:MIT Press.

Klima, E. (1964) Negation in English, in *The Structure of Language: Readings in the Philosophy of Language*, ed. J.Fodor & J.Katz. Englewood Cliffs: Prentice-Hall.

Koopman, H. (1984) *The Syntax of Verbs*, Dordrecht:Foris.

Lasnik, H. (1981) Restricting the Theory of Transformations: a Case study, in *Explanations in Linguistics*, ed. N.Hornstein & D.Lightfoot, Longman.

Lasnik, H. (1995) Case and Expletives Revisited: On Greed and Other Human Failings, *Linguistic Inquiry* 26:615-633.

Pollock, J.-Y. (1989) Verb movement, UG and the structure of IP, *Linguistic Inquiry* 20:365-424.

Speas, M. (1994) Null arguments in a Theory of Economy of Projections. In *UMOP 17: Functional Projections*, ed. E.Benedicto & J.Runner, Amherst, MA:GLSA.

Vainikka, A. (1989) *Deriving Syntactic Representations in Finnish*, University of Massachusetts/Amherst Ph.D. dissertation.

Vainikka, A. & Y. Levy (1995) Empty Subjects in Finnish and Hebrew, *IRCS Technical Report* 95-31, University of Pennsylvania.

Vainikka, A. & M. Young-Scholten (1994) Direct Access to X'-Theory: Evidence from Korean and Turkish Adults Learning German, in *Language Acquisition Studies in Generative Grammar*, ed. T.Hoekstra & B.D.Schwartz. Amsterdam: John Benjamins.