Control and null subjects are governed by morphosyntax in Finnish

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Abstract

Finnish control is poorly understood. This article attempts to fill in an important gap in the literature and examines finite and non-finite null subjects (pro, PRO) and their control in Finnish. It will be shown that there are two syntactic environments licensing controlled null pronouns. One environment is characterized by morphosyntactic activity, while the other exhibits the exact opposite profile. The control properties of the two types of null subjects differ from each other. These results suggest that the antique GB-theoretical analysis positing a connection between morphosyntax and null subjects is correct.

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This paper available at finnisyntax.wordpress.net -- 1
1 Introduction

Third person null pronoun subjects in the Finnish finite clause must be supplied with an antecedent (Vainikka & Levy, 1999).1

(1)

(a) *__ saa ylennyksen./ __ sain ylennyksen.
    get.3sg promotion  get.1sg promotion

(b) Pekka, uskoi että __ saa ylennyksen.
    Pekka believed that gets promotion
    ‘Pekka believed that he (=Pekka) get.3sg promotion.’

The relation between the null pronoun and its antecedent in (1)(b) is called control. The phenomenon is furthermore an example of finite control. Non-finite (obligatory) control constructions of the type (2) are well known from the linguistic literature.

(2) Pekka halusi __ lähteä.
    Pekka wanted to.leave
    ‘Pekka wanted to leave.’

This paper presents a unified account of Finnish finite and nonfinite control.2

2 Previous theories

2.1 Control

Finnish control is rather poorly understood. What we know today has been created largely as a side-effect of studies that have concentrated on other topics, pro-drop phenomenon in particular. The emphasis on finite pro-drop explains why obligatory control has received very little attention.

Vainikka & Levy (1999) examine the pro-drop parameter in several languages, including Finnish, and show that in the finite scenario (1)(b) the antecedent must c-command the null pronoun. There are no obvious locality requirements and none are reported. For example, neither phases (in the sense of Chomsky 2000, 2001 and so on) nor intervention plays any obvious role (3).

(3) Pekka, käski Merjan sanoa Jukalle, ettei __ tule tapaamiseen.
    Pekka asked Merja to.say to.Jukka that-not come.3sg meeting
    ‘Pekka asked Merja to tell Jukka that he (=Pekka) is not coming to the meeting.’

To make things more complex, later research has reported the existence of non-c-commanding antecedents. The following example comes from Holmberg et al. (2010).

(4) ?{Jarin, puhe} teki selväksi ettei __ ole syyllinen.
    Jari's speech made clear that.not be.3sg guilty
    ‘Jari's speech made it clear that he is not guilty.’

1 This version of the paper was prepared for a talk at Uralic Syntax Workshop in Budapest May 2016. To condense space, some important points are in the notes. Abbreviations: 0 = no agreement or default phi-features; A = A-infinitival; ACC = accusative case (all forms); ESSA = ESSA-adverbial; GEN = genitive case; IMPASS = impersonal passive; KSE = KSE-adverbial; MA = MA-infinitival/adverbial; NOM = nominative case; PAR = paritic case; TUA = TUA-adverbial; VA = VA-infinitival. Some studies are refereed by acronyms: H&B = the two papers Huhmarniemi & Brattico (2016) and Brattico & Huhmarniemi (ms) that constitute one study; H&N = Holmberg & Nikanne (2002); V&L = Vainikka & Levy (1999).

2 The whole line of argumentation will be based on the assumption that there are null pronouns in the empty slots marked in (1) and (2). While sometimes taken for granted, it is nothing but. Vainikka & Levy (1999) establish this fact for Finnish finite control in the case of non-third person null pronouns (1), while they also claim that in the third person there is nothing in the preverbal position. Later research has assumed that their argument extends also to third person, in effect to pronouns in all number and person, and this will be assumed here too. Huhmarniemi & Brattico (2016) and Brattico & Huhmarniemi (2016)(henceforth these two papers will be called H&B) establish this claim for nonfinite control constructions that exhibit possessive suffix agreement. The latter issue will play a prominent role in the present article. The corresponding argumentation is currently lacking in the case of Finnish obligatory control (2).
Holmberg et al. (2010), a study that concentrates again on a crosslinguistic theory of pro-drop, proposes that the finite control relation exhibited by (1)(b) is mediated by Agree, a grammatical dependency posited in the minimalist theory (Chomsky, 2000, 2001). They however acknowledge that there is data that is difficult to explain under any such system (e.g. (3), (4)), and because no solution is put on the table, the issue of Finnish control remains as foggy as ever.

Frascarelli (2015), who again focuses on the pro-drop phenomenon, presents additional observations analogous to (3) and (4). She proposes that the finite null subject is controlled by an overt or covert c-commanding topic in the C-field. In (1)(b) and (4) that topic constituent would be covert. According to this line of thought, the finite control relation is always build on discourse syntax represented in the CP-domain. Data-wise this study leaves no doubt that Finnish finite control is not constrained by c-command or by locality.

Huharniemi & Brattico (2016) (H&B) claim that similar facts are attested in a selected range of nonfinite domains that exhibit possessive suffix agreement. They claim that the pro-drop phenomenon extends to these nonfinite domains. While they too acknowledge that there are non-c-commanding control relations, they propose that the c-command and non-c-command control relations are established by two distinct mechanisms, one operating in narrow syntax (perhaps akin to Agree) and the other extra-syntactically. I will pick up with this controversy again in §4.1.1.

2.2 Licensing

Not every argument can become null (5).

(5) *Pekka, oivalsi että Merja rakasti *(häntä).
   Pekka understood that Merja loved him.

What comes to the licensing of null subjects themselves, I do not know any previous studies of licensing of null subjects of obligatory control constructions and/or nonfinite control constructions in Finnish. Licensing of finite null subjects is slightly better understood. We know that the third person null subject is able to satisfy Finnish finite EPP requirement (Holmberg 2005). Holmberg et al. assume that the null subject is licensed by finite T, while H&B suggest the licensing factor is agreement. This is not surprising, since finiteness, tense and agreement are in correlation. We will be able to look at this controversy later on.

3 A hypothesis

3.1 The generalization

I will argue that there are two types of controlled null subjects in Finnish that I will call Type I and Type II and whose distribution is regulated on morphosyntactic grounds. Type I resembles pro (finite control), while Type II resembles PRO (obligatory control). The labels “pro” and “PRO” will be used in the analyses, but generalization to other languages cannot be assumed to be trivial. No other types are needed to explain control in Finnish. I will show that every control construction in Finnish generates either pro or PRO, and provide both semantic and syntactic diagnostic properties to determine, for each control construction, which one it is.

I begin by presenting the overall hypothesis. Conditions (6) and (7) explain how the two types of null

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3 Agree is constrained by locality (intervention and phase boundaries), c-command and feature match, whereas the Finnish finite control relation is not.

4 She concludes that the null subject in (1) and (4) is controlled by an overt or covert topic constituent in the C-domain.

5 The Finnish left periphery (C-domain) has only one operator position that hosts a variety of constituents that are A-bar movement into that position (interrogatives, relative pronouns, focus elements, and so on). Finnish does not exhibit complex CP-cartography; rather, as argued by Brattico, Huharniemi, Purma & Vainikka (2015), the left peripheral complexity is represented in Finnish by means of overt suffixes, clitics and their combinations. The CP-domain plays only a minor role in the present study.

6 In addition to finite subject-verb agreement, Finnish exhibits nonfinite agreement by means of the possessive suffix that can be suffixed to nouns, adjectives, adpositions, adverbs and nonfinite verbs.

7 Finnish is a topic-prominent language in the sense that instead of demanding that a morphosyntactic subject occupies the preverbal subject, as in English, that position is occupied by almost any constituent that then receives a (definite, presupposed) topic interpretation by default (H&N). There is considerable freedom in overall word order in a Finnish finite clause. The morphosyntactic subject agrees with the finite verb in phi-features and is assigned the nominative Case. The thematic subject of several Finnish nonfinite phrases is assigned the genitive Case. So the two specifier/subject cases are the nominative and the genitive. There are in total fifteen case suffixes in Finnish. See note 2 for details concerning the glossing of Finnish case suffixes.
subjects are generated (licensing). Condition (8) captures everything I have discovered about control. Few
general remarks then follow.

(6) **Licensing of Type I null pronouns**
Type I null pronoun occurs optionally at the specifier of a head H such that (a) H exhibits full phi-
agreement with the null pronoun and (b) H has a syntactic specifier position that can host an overt
pronoun as well. If the null pronoun is in third person, it requires an antecedent determined by rule (8)
(i).

(7) **Licensing of Type II null pronouns**
Type II null pronoun occurs obligatorily in connection with a head H such that (a) H never exhibits
phi-agreement with the pronoun and (b) H does not have a syntactic specifier position that can host an
overt pronoun. The null pronoun necessarily requires an antecedent that is selected on the basis of rule
(8)(ii).

(8) **Control**

i. For Type I (pro), there are two strategies A and B operating in tandem:

A. The antecedent must c-command the NS (*c-command condition*) and it cannot conflict with the
   NS in semantic features (*avoid feature conflict condition*);

B. Null subjects (and as well as overt pronouns) that have extrasyntactic discourse features (e.g.
   ‘topic’) can look for matching antecedents (topics) also from the discourse within the limits of
   Binding Condition C;

Strategy B is bound by Strategy A: If (A-B) can converge on the same constituent, that
constituent must be the antecedent. If (A-B) target different constituents, the construction will
be ambiguous. If neither (A) nor (B) converge into anything, the sentence is ungrammatical;

ii. For Type II (PRO): The antecedent must c-command the NS (*c-command condition*) and be the
    most local possible (*locality condition*).

iii. C-command relations (in i-ii) are computed before A-bar movement but after A-movement.

Some comments and explanations are in order before we look at the evidence in detail.

3.2 **Derivation of the Finnish partial pro-drop profile**

In addition to the grammatical antecedent search (A), there is now a discourse antecedent search Strategy B.
The idea that there are two independent but interacting mechanisms comes from H&B, but the formulation
here is different. I will compare these two approaches in §4.1.1. Here’s how the hypothesis works. Recall
that sentences such as (9) are ungrammatical in Finnish.

(9) *on aina paikalla ajoissa.
   is.3sg always in.place in.time
   ‘He is always there in time.’

Strategy A tries to find a c-commanding antecedent but finds none. Strategy B tries to find a topic
antecedent, but because the null subject itself is the topic, it finds none. Hence nothing is found and the
sentence is ungrammatical. We can try to fix either of these problems. We can provide a c-commanding
antecedent for Strategy A. This is the process that generates (1)(b) and (10).

(10) Pekka väittää että ___ on aina paikalla ajoissa.
    Pekka claims that is always in.place in.time
    ‘Pekka claims that he is always there in time.’
There are no locality requirements in (8)(i), so the antecedent must only c-command with the null subject and they cannot conflict in their (semantically relevant) feature composition. We can also try to provide a discourse antecedent:

(11) Pekkaa ei tarvitse muistuttaa tapaamisesta. ___ on aina paikalla ajoissa.
    There is no need to remind Pekka of the meeting. ___ is.3sg always in.place in.time.
    <Pekka> <----------------------|<topic>

In (11), there is a ‘topic’ feature at the null pronoun that is matched with something in discourse that has the same feature. The reader should be aware here of the fact that Finnish is a topic-prominent in the sense that the preverbal subject position is interpreted as the topic by default (H&N); see note 7.

If the c-commanding antecedent and the topic algorithm find the same constituent, then that constituent must be selected. This will explain the data in (12). Only Pekka’s cousin can be selected as an antecedent because it both c-commands the null pronoun and it is also a topic. Selecting ‘Pekka’ is really awkward in this context, possibly ungrammatical.

(12) {Pekan 2 serkku}1 väittää että __1,*?2 on aina ajoissa paikalla.
    Pekka’s cousin claims that is.3sg always there in time
    <--------A------------|
    <--------B------------|
    ‘Pekka’s cousin claims that he (cousin) is always there in time.’

We therefore derive a notion of “subject-orientation” in antecedent selection, as subjects are constituents that typically satisfy both A and B. A more detailed examination of these rules will be provided below. These remarks serve to give the general flavor of the hypothesis.

3.3 Control and movement

C-command relations are computed after A-movement but before A-bar movement (8)(iii). It is well known that A-bar movement bleeds control (13).

(13)

(a) {__} Auto-nsa-ko} Pekka rikkoi __.
    car.ACC-3sg-Q Pekka broke ___
    ‘Was it his car that Pekka broke?’

(b) ??{Pekkaa-ko} __ rikkinäinen auto-nsa} häiritsi __.
    Pekka-PAR-Q ___ broken car-3sg} disturbed ___
    ‘Was it Pekka that his broken car disturbed.’

The reason (b) is worse but not ungrammatical is either due to Strategy B that is able to locate the antecedent from the discourse – and even a local antecedent is clearly on offer here -- or due to restructuring of the clause in which the movement is backtracked. A contrast (a-b) nevertheless exists. The relation between control and A-movement is perhaps less clear, the following evidence suggesting that control relations can be computed after A-movement.

(14) Pekka näyttää {__ äiti-nsä mielestä } __ pärjäävän hyvin.
    Pekka seems mother-3sg opinion doing well ___
    ‘Pekka seems to his mother to be doing well.’

Is it possible to compute control relations before A-movement? I think there is again some resistance, and this sentence has the same aura of marginality than does (13)(b), which suggests that the antecedent might be located by utilizing Strategy B and/or by restructuring the clause by backtracking the movement operation.

(15) ??{__ äitinsä} näyttää {Pekasta} __ pärjäävän hyvin.
    {__ mother-3sg} seems Pekka doing well ___
    ‘His mother seem to Pekka to be doing well.’
I therefore claim in (8)(iii) that narrow syntactic control computations (Strategy A) take place after A-movement but before A-bar movement. At the very least this is the unmarked option. Strategy B does not understand “c-command” at all because it operates outside of narrow syntax.

These observations are relevant to another matter. It was clear already from the previous literature cited in §2 that there are non-c-commanding discourse antecedents, and that while somewhat marginal, they are not ungrammatical. Examination of other control constructions often produces similar results. Why such wild antecedents are not strictly ungrammatical, but only marginal, and why there nevertheless exists contrasts with the more standard cases? The solution I propose here, following H&B, is that two grammatical mechanisms are in operation. Strategy A provides the standard cases that are fully grammatical as they go, while Strategy B is an auxiliary mechanism that supplies the more marginal options.

Somebody immersed with the minimalist lore might find it surprising that there are no locality conditions. But if there are no locality conditions, there are no locality conditions period. It is a waste of time to try to invent them to align the data with a wrong theoretical model. Consider the case of Finnish finite control that does not obey any obvious locality restrictions. Why not? This is simply because the null pronoun sitting the subject position of Finnish finite clause is much like an overt third person pronoun, an entity that is not bound by locality.

3.4 Avoid feature conflict

I am not sure if the feature match condition has been discussed in previous literature. It will play an implicit role in the forthcoming discussion. It is exhibited by examples such as (16)(a). In (b-d) the thematic role of the VA-infinitival null subject does not match with the thematic role of the matrix subject.

(16)

(a) Pekka kertoi {__ lähtevänsä kotiin illalla}.  
Pekka told leave.VA.3sg home evening
<agent> <agent>
‘Pekka told that he will leave home in the evening.’
(b) *Pekalle kerrottiin {__ lähtevänsä kotiin illalla}.
  to.Pekka was.told leave.VA3sg home illalla
  <patient> <agent>
  Intended: ‘Pekka was told that he will leave home in the evening.’

(c) *Pekkaa pelottaa {__ kävelevänsä yksin pimeässä}.
  Pekka.PAR frightens walk.VA.3sg alone in.dark
  <exp> <agent>

(d) *Pekkaa kannustettiin {__ voittaakseen kilpailun}.
  Pekka.PAR was.cheered win.KSE.3sg competition
  <patient> <agent>
  ‘Pekka was cheered for him to win the competition.’

I can imagine other possible explanations for the data in (a). For the purposes of this paper, these facts will be explained away by utilizing feature match. The hypothesis makes clear empirical predictions that are somewhat difficult to test in Finnish. One possible test platform is the noun phrase. Do the following clauses have readings in which Pekka is the patient of the nominalized transitive verb, not the agent?

(17)

(a) ??Pekka mokasi {pro esittelynsä}.
  Pekka failed presentation.3sg
4 Evidence

4.1 Type I null subjects and their control

4.1.1 Finite clause

Finnish finite clause exhibits subject-verb agreement and there is also a preverbal position filled in by some type of EPP condition (Vilkuna, V&L, H&N; note 7 in the present paper). Type I null subjects should therefore generate Type I null subjects and fail to generate Type II null subjects. In addition, we have to show that they generate null subjects only in the presence of agreement.

The claim that a covert pronoun can fill in the Finnish finite clause subject position is not controversial and was illustrated by (1). The claim that the null subject is possible only if there is agreement was made in H&B. For example, if the embedded finite clause contains a modal verb that does not agree with the subject, no control relation emerges. The embedded null subject sentence receives an a generic interpretation. I will return to generic sentences in §4.3.2.

(18)

(a) He väittävät että __ täytyy herätä aikaisemmin.
   they claim that must.0 wake.up earlier
   ‘They claim that one (incl. or excl. them) must wake up earlier.’

(b) He väittävät että __ saa-vat herätä aikaisemmin.
   they claim that can-1pl wake.up later
   ‘They claim that they can wake up later.’

(c) He kielletävät että *(heitä) pelottaa.
   they deny that they.PAR frighten.0
   ‘They deny that they feel frightened.’

If the finite control clause is headed by a Type I null subject, that null subject should, according to the present analysis, fill in the preverbal EPP position. This was shown by V&L for first and second person pronouns, and later the claim has been extended for third person. In addition, the Type I null subject should be optional. Obviously an overt pronoun can replace it. Finally, Type II null subjects are predicted to be impossible, which is shown by the fact that the null subject is optional (Type II is not) and it does not have to take the closest c-commanding constituent as its antecedent (V&L, Holmberg, Frascarelli). What happens to null subjects when a finite clause does not exhibit subject-verb agreement will be discussed in §4.3.2.

Let us look at control next. My proposal differs from Holmberg et al. in that principle (8) allows control by non-c-command antecedents (Strategy B), while Holmberg et al. relies on Agree that is constrained by c-command and even strict locality. Holmberg et al. must handle the anomalous data in some way, for example, by arranging the required c-command and locality relations by means of covert movement. Since no explanation is provided, the Agree-based system, as formulated in the source, needs more development in

10 A possible counterexample is the impersonal passive clause that does not exhibit agreement but the control relation is possible, for example: *me päätettiin että __ lähdetään aikaisemmin ‘we concluded.IMPASS that (we) leave.IMPASS earlier.’ This objection is wrong, because the null subject is neither singular nor plural third person null subject. The impersonal passive clause contains a suppressed, demoted subject that if anything is in first person plural human and which does not require control.

11 I will ignore V&L argument against null third person null pronouns at Spec,FinP here. I have discussed the issue at https://finnishsyntax.wordpress.com/2015/07/29/some-critical-comments-on-vainikka-levy-1999/
order to count as an explanation of these facts.

Frascarelli (2015) proposes that the null subject is always controlled by an overt or covert topic constituent in the C-field. A difference with Frascarelli’s and the present hypothesis is that (8) predicts c-commanding non-topic antecedents to be possible in the presence of topics. Because I find such control relations possible, I reject Frascarelli’s only-topics system for Finnish. Example (19) provides one example, with the topic in bold text. In general it is the case that the topic does not have to be the antecedent, a non-topic antecedent is possible provided that it c-commands the null subject.  

\[
(19) \quad \text{Mitä tulee poliiseihin, pankkirosvot tietävät etteivät __₁,₂ pääse enää heitä₁,₂ pakoon. }
\]

‘What comes to the police, the bandits know that they cannot escape them anymore.’

There are other problems in Frascarelli’s system, but I omit them. The present hypothesis explains the data in (19) by saying that the non-topic c-commanding antecedent ‘bandits’ is found by Strategy A, while the non-c-commanding topic ‘police’ is picked up by Strategy B. Because both strategies select different constituents, the sentence is ambiguous (with pragmatics usually pointing towards one interpretation, as is the case here; you get the other interpretation by using \textit{...know that (they) cannot catch them}). If we remove the phrase ‘what comes to the police’, then both strategies will select the subject ‘bandits’ and that becomes the only possible antecedent.

H&B claims that Strategy B is a last resort mechanism and therefore only used if the grammatical Strategy A fails (Strategy A > Strategy B). This predicts that ‘police’ could not be an antecedent in (19), but I think it can. The existence of a c-commanding local antecedent does not make the discourse antecedent impossible, which leads me to reject H&B. Data such as (19) suggests that the two mechanisms must operate in parallel, otherwise the existence of a more local c-commanding antecedent should literally prevent the discovery of the non-local non-c-commanding antecedent. The situation is depicted in (20).

\[
(20) \quad \text{Mitä tulee poliiseihin, pankkirosvot tietävät etteivät __₁,₂ pääse enää heitä₁,₂ pakoon.}
\]

My judgment is that the Strategy B discourse antecedent is more marginal than the syntactic Strategy A antecedent. The reason is because ‘bandits’ is in the Finnish preverbal topic position and attracts Strategy B no matter what we do in the context.

**4.1.2 Noun phrase (NP/DP) and adposition phrase (PP)**

Finnish noun phrases and adposition phrases exhibit full agreement and they have a grammatical specifier (EPP) position. Overt properties of Finnish noun phrase and adposition/preposition phrase are predicted to generate Type I null subjects. The matter was argued by H&B and their argument will only be summarized here. Both noun heads and adpositions exhibit optionally full phi-agreement in Finnish. When they do, the pronoun can be null. When it is null and in third person, it also requires an antecedent (21).

\[
(21) \quad \begin{align*}
(a) & \quad \text{I.GEN} & \text{auto-ni/} & \text{I.GEN} & \text{auto} \\
& \quad \text{‘my car’} & & & \\
(b) & \quad \text{I.GEN} & \text{lähellä-ni} & \text{I.GEN} & \text{near-Px} \\
& \quad \text{‘near me’} & & & 
\end{align*}
\]

12 One can use various tricks to make the preverbal element less topical, for example, by using quantifiers such as ‘nobody’.

13 One is that the Finnish C-domain does not contain a designated topic position.

14 Not all Finnish adpositions exhibit agreement. When they do not, the noun phrase occurs in the complement position and is assigned the partitive Case (\textit{kohit talo-a ‘towards house-PAR’}). So only some adpositions have the EPP/Agree profile. Some adpositions have both profiles (\textit{lähellä minua ‘near me.PAR’ vs. minun lähellä-ni ‘my near.1SG’}). See Manninen (2003) and Brattico (2013).
The proposition that noun phrases and adposition phrases in Finnish have the EPP requirement was argued by Brattico & Leinonen (2009) for noun phrases and Manninen (2003) (also Brattico (2013)) for adposition phrases. The prediction that third person null subjects in (21)(c) can seek c-commanding and non-c-commanding antecedents was shown in H&B. We have to show that the control relation follows (8). The fact that c-command and feature match play a role is not surprising (22).

One possible difference between the current hypothesis and H&B's system is that H&B predicts discourse antecedents to be impossible in the presence of c-commanding antecedents, whereas according to current hypothesis Strategy B could in theory pick up discourse antecedents independently. Put this way, the facts favor H&B's hypothesis. Here are only a selection of data; I am unable to force the null subject to refer to discourse antecedents in the presence of c-commanding antecedent.

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15 Why Strategy B has more limited range of application in connection with noun phrases? The reason could be because the discourse algorithm does not just “pick up discourse antecedents”; rather, it looks for antecedents that match with the null subject in features, and therefore only when the null subject is marked as ‘topic’ can it find a topic antecedent from the discourse. The standard interpretation of a Finnish finite clause is that the topic is the preverbal subject, not the possessor of a noun phrase. This I think is what we see in (23): to let the possessive null subject to access discourse we have to lessen the topicality of the preverbal subject, or eliminate it in its entirety, and then try to make that possessive the topic by using context. These operations do not reach the level of naturalness that we see in finite clauses, in which the preverbal null subject itself is the topic by default.
4.1.3 TUA-adverbial

The Finnish TUA-adverbial, best glossed as ‘after doing something’ in English, is illustrated in (24).

(24) Lapsi nukahdi {__ luet-tua-an iltasadun}.  
    child fell.asleep after.reading-TUA-3sg bedtime.story  
    ‘The child fell asleep after reading a bed time story.’

The adverbial clause luettaan iltasadun ‘after reading the bed time story’ is composed out of a verbal root lue- ‘to read’ (for Finnish roots, see Brattico 2005), suffixed with the TUA material, which makes it an adverb, followed by agreement. There is no overt thematic subject in (24), but there is a control relation to the matrix clause subject that is also reflected in the agreement (25). The reader is the same person as the one who fell asleep in (24).

(25) Minä nukhadin {__ lue-ttua-ni iltasadun}.  
    I fell.asleep read.TUA.1sg bedtime.story  
    ‘I fell asleep after reading a bed time story.’

The fact that there is agreement is compatible with the proposition that the null subject is Type I, which implies that it ought to be possible to insert an overt subject/pronoun to the preverbal position of the TUA-adverbial. This turns out to be the case:

(26) Lapsi nukahdi {isän luet-tua iltasadun}.  
    child fell.asleep father.GEN read-TUA.0 bed.time.story  
    ‘The child fell asleep after the father read the bed time story.’

The null subject of the TUA-adverbial is therefore a Type I null subject, the same element that occurs in the subject position of a finite clause (27).

(27) Lapsi nukahdi {pro luet-tua-an iltasadun}.  
    child fell.asleep after.reading-TUA-3sg bedtime.story  
    ‘The child fell asleep after reading a bed time story.’

This hypothesis predicts that it should be impossible to have the null subject without agreement. This prediction is borne out:

(28) *Lapsi nukahdi {__ luet-tua iltasadun}.  
    child fell.asleep read-TUA.0 bed.time.story

Notice that once the TUA-adverbial is headed by an overt subject, agreement disappears (0 in the gloss; (26)). The reason is because only pronouns trigger the possessive agreement (29).

(29) Lapsi nukahdi {sinun luet-tua(-si) iltasadun}.  
    child fell.asleep you.GEN read-TUA-2sg bed.time.story  
    ‘The child fell asleep after you read the bed time story.’

Is the Type II null subject possible in this context? The presence of overt pronoun subject, agreement and the fact that agreement is a necessary condition for the null subject suggest that Type II is not possible. This is further supported by the observation that the control relation targets the matrix subject (30).16 Type II null subjects, in contrast, target the closest possible c-commanding antecedent.

(30) Pekka1 tapasi Merjan2 {__ lähde-tytänen kotoa}.  
    Pekka met Merja left.TUA.3sg home  
    ‘Pekka met Merja after he(*she) left home.’

16 Somewhat difficult to test because this is an adverbial that is presumably already first-merged above the direct object. Ditransitives behave similarly however; Pekka1 lainasi Merjalle2 kirjan3 {pro lähdettyään kotoa} ‘Pekka borrowed to.Merja the.book {after he/*she/*it left home}’.

If you want to refer to a local constituent, the null subject must be substituted by tämä ‘this’.

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Are non-c-c-commanding discourse antecedents available? The discourse strategy B can be used if the null pronoun itself has some discourse property, such as ‘topic’. Furthermore, the matrix clause subject antecedent is itself a topic, which forces it to be selected by both strategies (31).

\[(31)\]
\[
\begin{array}{llll}
\text{Pekka}, & \text{tapasi} & \text{Merjan}, & \{\_\_\_\_\_\_, lähdettyään kotoa}. \\
\text{Pekka} & \text{met} & \text{Merja} & \text{left.TUA.3sg home} \\
\end{array}
\]

\[\begin{array}{c}
\text{<topic><c-command>}
\end{array}\]

\[\begin{array}{c}
\text{Strategy A}
\end{array}\]

\[\begin{array}{c}
\text{Strategy B}
\end{array}\]

In order to force the null subject to be controlled by a discourse antecedent, we have to (1) remove the topic subject and (2) utilize some context to try to attach a discourse feature ‘topic’ to the subject of the adverbial clause. What we get are sentences such as (32).

\[(32)\]
\[
\begin{array}{llll}
\text{Mitä tulee Pekkaan, ollaan olut yhdessä paljon kalassa} & \{\_\_\_\_\_\_, jouduttuaan työttömäksi}. \\
\text{what comes to Pekka, have.PASS been together much fishing} & \text{become.TUA.3sg unemployed}
\end{array}
\]

\[\begin{array}{c}
\text{Strategy A}
\end{array}\]

\[\begin{array}{c}
\text{Strategy B}
\end{array}\]

‘What comes to Pekka, we have done much fishing together after he was fired.’

I think this is not strictly ungrammatical and that Strategy B is able to salvage the clause. The achieve such control relations, the conditions are, to repeat: (1) remove the c-commanding topic subject antecedent by using some trick and (2) latch topicality to the null subject by utilizing context.

4.1.4 ESSA-adverbial

The data below shows that the ESSA adverbial patterns with the TUA-adverbial: the adverbial agrees in phi-features (33)(a), there is room for an overt pronoun or DP (33)(b) while agreement is again a precondition for the occurrence of the null pronoun (33)(c). This construction will therefore be analyzed as in (33)(d).

\[(33)\]

(a) \[
\begin{array}{llll}
\text{Pekka nukahti} & \{\_\_\_\_\_\_\_\_ luki-essa-an kirjaa}. \\
\text{Pekka fell.asleep} & \text{read-ESSA-3sg book}
\end{array}
\]

‘Pekka fell asleep when/while reading a book.’

(b) \[
\begin{array}{llll}
\text{Pekka nukahti} & \{\text{isän} luki-essa kirjaa}. \\
\text{Pekka fell.asleep} & \text{father.GEN read-ESSA.0 book}
\end{array}
\]

‘Pekka fell asleep when/while his father was reading at the book.’

(c) \[
\begin{array}{llll}
\text{??Pekka nukahti} & \{\_\_\_\_\_\_\_\_ luki-essa kirjaa}. \\
\text{Pekka fell.asleep} & \text{read.ESSA.0 book}
\end{array}
\]

‘Pekka fell asleep when/while reading a book.’

(d) \[
\begin{array}{llll}
\text{Pekka nukahti} & \{\text{pro luki-essa-an kirjaa}. \\
\text{Pekka fell.asleep} & \text{read-ESSA-3sg book}
\end{array}
\]

These data agree with the present hypothesis apart from the fact that (c) is agreementless and has a null subject controlled by the matrix subject. Is it PRO? For the rest of this section I will consider (33)(c).

4.1.5 ESSA-adverbial without agreement; generic adverbials

The use of the non-agreeing form is more limited:

\[(34)\]
(a) Pekka tapasi Merjan {__ pyöräillessä?*(ään)}.  
Pekka met Merja bike.ESSA.(3sg)  
‘Pekka met Merja while biking.’

(b) Pekka nukahti {__ lukiessa?*(ään)}.  
Pekka fell.asleep read.ESSA.(3sg)  
‘Pekka fell asleep while reading.’

(c) Pekka hymyili {__ voittaessa*(an) kilpailun}.  
Pekka smiled win.ESSA.(3sg) competition  
‘Pekka smiled while winning the competition.’

The agreementless ESSA-adverial is not compatible with accomplishment or achievement aspect, as shown in (35).

(35)

(a) Lapsi kiukutteli usein {__ syödessä *puoron/ puuroa}.  
child was.angry often eat.ESSA.0 pourage.ACC pourage.PAR  
‘The child was often angry while eating the porridge/some porridge.’

(b) Lapsi kiukutteli usein {__ syödessään puoron/ puuroa}.  
child was.angry often eat.ESSA3sg pourage.ACC pourage.PAR  
‘The child was often angry while eating the porridge/some porridge.’

In addition, the non-agreeing ESSA-adverbial can be used to establish generic reading, while there is some resistance to do the same with the TUA-adverbial.

(36)

(a) {__ luki-essa (kirjaa)} saattaa nukahtaa.  
read-ESSA.0 book can fall.asleep  
‘When reading a book one can fall asleep.’

(b) *?{__ luettua (kirjan)} tuntuu hyvältä.  
read-TUA.0 book feels good  
‘One feels good after reading a book.’

(c) *{kirjan luettua} voi olla tyytyväinen.  
book read.TUA.0 can be happy  
‘After reading a book one can feel good.’

(37) {Luettua?(an) kirjan kokonaan} voi aina olla tyytyväinen.  
read.TUA.(3sg) book.ACC completely can always be happy  
‘After completing a book one can always be happy.’

Recall that a finite clause that has no subject and lacks agreement generates generic reading too. This I believe is the case with the agreementless ESSA adverbial. If the ESSA-adverbial can generate generic reading, in some sense, it ought to be possible to use it without creating a control relation to the matrix subject. In the examples examined thus far, there is a control relation between the ESSA-adverbial and the matrix subject, while the generic nature of the adverbial seems to come out of its temporal/aspectual nature (in which the adverbial is a generic property of some type of events). If we accept the agreementless ESSA adverbial itself as grammatical, then I think we have to accept the fact that such generic/non-controlled readings do indeed exist (38).

(38)
(a) Koira haukkuu {myrskytessä}.
   dog  barks                storming.ESSA.0
   ‘The dog barks when there is a storm.’

(b) Kissa pelästyy aina {huutaessa}.
    cat  fears  always        shout.ESSA.0
    ‘The cat becomes frightened always when one shouts.’

Adding agreement to these forms puts the control relation back online. In order to completely break the
control relation between the ESSA-adverbial and the matric subject we need to add something (affix X)
between the root and the ESSA-suffix:

(39)

(a) Kaikki hakevat tavaransa varastosta {__ pyyd-että-essä}.
    everybody  brings  things  from.storage    ask-X-ESSA.0
    ‘Everybody will brings their stuff from the storage when asked.’

(b) Pekka punastuu {__ aina laul-etta-essa}.
    Pekka  reddens  always   sing-X-ESSA.0
    ‘Pekka becomes red always when one (incl. or excl. Pekka) sings.’

The affix X looks like the causative, but it is not; the causative forms are laul-a-essa ‘sing-CAU-ESSA.0’
and pyydätätessä ‘ask-CAU-ESSA.0’, and then control relations are again turned online. X is in fact a
special form that licenses a true adverbial generic pronoun. This is shown by the fact that adding agreement
(thereby forcing control) produces gibberish, and that by removing X true generic non-controlled reading
becomes impossible (40).

(40)

(a) *Pekka punaistuu {__ laul-etta-essa-an}.
    Pekka  reddens                sing-X-ESSA.3sg

(b) Pekka punaistuu {__ laula-essa}.
    Pekka  reddens                sing-ESSA.0
    ‘Pekka becomes red when he (one??) sings.’

These facts are interesting because it looks as if the agreementless ESSA-adverbial could license a type of
null subject that has many properties of pro expect for the that the adverb itself does not show agreement,
and that some special licensing conditions (related to aspect) are in force. Evaluation of grammaticality and
semantic interpretation are in some instances quite a challenge. The sum of the evidence suggest that the
construction is ambiguous between the generic reading and controlled reading, and that the unambiguous
controlled reading normally requires agreement (pro) while the unambiguous generic reading (generic
subject pronoun) arises via the generic affix. The bare ESSA adverbials sits between and flips between these
two. Thus, when it is interpreted as hosting pro, abstract agreement is projected into the construction; when it
is interpreted as generic, the generic affix is projected.

4.1.6  Adjective phrase (MA-participle)

Finnish has two prehead participle adjective constructions, of which we first look the MA-participle. The
construction is provided in (41).

(41) Pekka palautti {__ löytä-mä-nsä kirjan}.
    Pekka  returned                found-MA-3sg  book
    ‘Pekka returned a book that he had found.’
The adverb *löytämänsä* is composed out of a verbal root *löytä-* ‘find’ together with the MA-suffix and agreement (not only concordial agreement, but possessive agreement). Agreement (3sg) is with the matrix subject. The thematic subject of the adjective phrase is the matrix subject, as shown in the translation. The presence of agreement suggests that there is Type I null subject. This predicts, correctly, that the null pronoun can be substituted by overt pronoun (42)(a) and that the null subject object occurs only if there is agreement (42)(b). This construction will be analyzed as in (42)(c).

(42)

(a) Pekka palautti {minun löytämän kirjan}.
Pekka returned {I.GEN found.MA book}
‘Pekka returned a book found by me.’

(b) *Pekka palautti {__ löytämä(+n) kirjan}.
Pekka returned {found-MA.0 book}

(c) Pekka palautti {pro löytä-mä-ni kirjan}.
Pekka returned {found-MA-1sg book}

Control properties are those of (8). There is a strong subject orientation and locality is not a requirement.

(43)

(a) Pekka palautti Merjalle {__ löytämänsä kirjat}.
Pekka returned to.Merja found.MA.3sg books
‘Pekka returned to Merja the books that he/??she has found.’

(b) Pekka, pyysi Jukkaa palauttamaan Merjalle {__ löytämänsä kirjat}.
Pekka asked Jukka to.return to.Merja find.MA.3sg books
‘Pekka asked Jukka to return to Merja the books that he (=Pekka/Jukka) had found.’

Discourse strategy is possible provided that there are no subject/topic antecedents, as usual (44).

(44) ??Pekka, sai pankista useita kirjeitä. Tiedettiin että __ saamansa kirjeet menivät kaikki roskiin.
Pekka got from.bank several letter. Know.IMPASS that __ got.MA3sg letters went all to.garbage
‘Pekka got several letters from the bank. It was know that the letter he got he threw out to the garbage.’

4.1.7 The VA-infinitival

There is much puzzlement over the Finnish VA-infinitival, but its properties fall in place on the basis of (6)-(8). The construction resembles finite clause in the sense that there is a tense alteration (past/present) and the construction exhibits full phi-agreement. Any normal finite clause can be transformed into a VA-infinitival, making the VA-infinitival very close in meaning with that of a full that complement clause. It is not finite, however. It only occurs in the complement position of other verbs and does not exhibit typical left edge syntax of finite clauses (operators, topics). It cannot host finite elements such as the modals, negation or auxiliaries. It has a preverbal specifier position that can be filled in by a overt pronoun. The thematic subject is in the genitive case.

(45) Pekka uskoi Merjan/minun lähtevän.
Pekka believed Merja.GEN/I.GEN leave.VA.0
‘Pekka believed that Merja will leave.’

There is no agreement between the thematic subject and the VA-infinitival in (45). The agreeing form is marginal to me:
However, and as predicted by the present analysis, the null subject makes agreement obligatory (47):

(47)

(a) *Pekka uskoi __ lähtevän.
Pekka believed leave.VA.0

(b) Pekka, uskoi __ lähtevä-nsä.
Pekka believed leave.VA-Px/3sg
‘Pekka believed that he (=Pekka) will leave.’

Overt arguments do not trigger agreement at the VA-infinitival (cf. finite clause).

(48)

(a) *Pekka uskoi hänen lähte-vä-nsä.
Pekka believed he.GEN leave-V A-3sg

(b) Pekka uskoi hänen lähte-vän.
Pekka believed he.GEN leave-V A.0
‘Pekka believed that he will leave.’

This is something that we still have to explain, although the present hypothesis does not require agreement with overt subjects; it requires agreement in the case of Type I null subjects.

The null subject of the VA-infinitival is controlled by the matrix clause subject, as predicted by (8): both Strategy A and Strategy B lead into the same constituent. To test if discourse antecedents are possible we again have to find a way to eliminate the subject/topic entirely (prevent convergence between A and B) and further create a context that makes the null subject of the VA-infinitival the topic, so that it can try to match another topic from discourse. The problem is to generate a main clause that would both have no subject and select the VA-infinitival. Perhaps (49) counts; but I cannot say if it is grammatical or not.

(49) ??Mitä tulee Pekkaan, tiedettiin {__ aikovansa perua kaikki lupauksensa}. what comes to Pekka, believes.IMPASS attempt.VA.3sg cancel all promises
‘What comes to Pekka, it was known that (he) will try to not to honor any of his promises.’

As it is with other nonfinite null subjects, the discourse reading is hard to get because the null subject itself does not occupy a topic position.

4.1.8 Summary

I have argued that Type I (pro) null subjects are generated to specifier positions of grammatical heads that exhibit both phi-agreement and provide specifier positions (EPP) for both overt and covert elements, and that such null subjects are generated only if there is overt agreement. Their antecedent properties are those of (8), with the possible exception that the discourse strategy is fully utilized only in finite domains where the null subject itself occupies a discourse-related topic position.

4.2 Type II null subjects

4.2.1 Obligatory control (OB) in Finnish: preliminary observation

Before examining Type II null subjects and their control, we need to say something about obligatory control constructions (OB) in Finnish in general, as we are on a virgin territory.
A very basic observation is that for Finnish verbal complement clauses, of which there are several kinds (see Koskinen 1998), both the nature of the verbal complement itself and the verb that selects it are relevant for null subject and control behavior. To see this, we consider two selecting verbs *want* and *ask*, and two complement verbs, the A-infinitival and the VA-infinitival. We show that it is the combination of the selecting verb and the selected verb which determine whether and what kind of null subjects can occur. The data is in (50)-(52) and it is self-explanatory.

(50)  *want + A-infinitival = null subject obligatory*

(a) Pekka halusi ___ lähteä.
Pekka wanted leave.A
‘Pekka wanted to leave.’

(b) *Pekka halusi Merjan lähteä.
Pekka wanted Merja.GEN leave.A
Intended: ‘Pekka wanted Merja to leave.’

(51)  *ask + A-infinitival = overt subject obligatory*

(a) *Pekka käski ___ lähteä.
Pekka ask leave.A

(b) Pekka käski Merjan lähteä.
Pekka asked Merja.GEN leave.A
‘Pekka asked Merja to leave.’

(52)  *want + VA-infinitival => overt argument obligatory*

(a) *Pekka halusi ___ lähtevän.
Pekka wanted leave.VA

(b) Pekka halusi Merjan lähtevän.
Pekka wanted Merja.GEN leave.VA
‘Pekka wanted Merja to leave.’

This is why I will occasionally examine pairs of elements, for example, a combination of *want* + Infinitival instead of single constructions in isolation.

4.2.2  *want + A-infinitival*

The *want* + A-infinitival (41) projects an obligatory null subject (53)(a-b). It never exhibits agreement (53)(c). Thus, as predicted by the current theory, an agreementless and specifierless verb generates Type II obligatory null subject (labeled as PRO, (53)(d)).

(53)

(a) Pekka halusi ___ lähteä.
Pekka wanted leave.A
‘Pekka wanted to leave.’

(b) *Pekka halusi Merjan lähteä.
Pekka wanted Merja.GEN leave.A

(c) *Pekka haluasi (Merjan) lähteä-nsä.
Pekka wanted (Merja) leave.A-3sg
The want + A-infinitival combo therefore generates a predicate that is morphosyntactically inactive: it cannot project a specifier (53)(b) or exhibit agreement (53)(c). We can see, therefore, that morphosyntactic inaction creates obligatory null subjects, or, in other words, there is something about the lack of morphosyntax (including EPP) that prevents an overt argument to occur.

The antecedent properties of the null subject are those of (8)(ii). C-command condition is trivial. Closest antecedent can and must be selected (a,c), but there might be no other restrictions (b,c)(hence no such conditions were written into (8)):

\[(54)\]

\[(a)\] Merja\textsubscript{2} ymmärsi Pekan\textsubscript{1} haluavan PRO\textsubscript{1}\textsubscript{2} lähteä.\textsuperscript{17}  
Merja.NOM understood Pekka.GEN want.VA leave  
‘Merja understood that Pekka wanted to leave.’

\[(b)\] Pekka\textsubscript{1} näyttää __ haluavan PRO\textsubscript{1} lähteä.  
Pekka seems want.VA leave  
‘Pekka seems to be wanting to leave.’

\[(c)\] Meitä pelottaa PRO lähteä.  
we.PAR fear leave  
‘We are frightened to leave.’

According to (8)(ii), discourse search should not be available. I think such constructions are extremely marginal, if possible at all:

\[(55)\]

\[(a)\] ?*Mitä tulee Pekkan\textsubscript{1}, me käskettiin PRO\textsubscript{1} lähteä.  
what comes to Pekka we asked leave  
‘What comes to Pekka, he is frigthened to leave.’

\[(b)\] *Mitä tulee Pekkan\textsubscript{1}, pelottaa PRO\textsubscript{1} lähteä.  
what comes to Pekka fear leave  
‘What comes to Pekka, he is frigthened to leave.’

\[(c)\] *Pekka\textsubscript{1} tuli eilen kylään. Haluttiin PRO\textsubscript{1} tulla myös huomenna uudestaan.  
Pekka visited us yesterday. Wanted.IMPASS come also tomorrow again.

Because selection affects the behavior of the A-infinitival, these examples must be construed with care. Consider:

Pekka visited yesterday. Asked.1sg.IMPASS come tomorrow again  
‘Pekka visited us yesterday. I asked him to come also tomorrow.’

Now remember that käskä ‘ask’ requires an overt argument (Minä käskän *(Merjan) lähteä ‘I asked Merja.GEN leave.A’). In (56), the the null subject cannot refer to the closest c-commanding argument (‘1’), so we know it is not PRO and this construction is not of the want + A-infinitival type.\textsuperscript{18}

\textsuperscript{17} Notice that if you use an overt pronoun at the Spec of the A-infinitival in (54)(a), it can refer to Merja as well. But how can you use the overt pronoun there if the null subject if PRO? It is the selecting verb plus the selected verb that together determine the type of construction we are looking at. The VA + A-infinitival creates a structure that allows both and the structure is ambiguous. What about VA-infinitival that is generated from the root ‘ask’? The root element wins: *minä tiesin Merjan käskän __ lähteä, minä tiesin Merjan käskän Pekan lähteä.

\textsuperscript{18} What we have in (56) is a contextually-based subject deletion from the specifier position of a verb that normally requires an overt constituent (Pekka häiritsi minua. Käskin __ lähteä. ‘Pekka disturbed me. I asked __ leave’) and which does not require agreement. This is something -- a diary drop most likely -- that relies only on Strategy B and takes place at the theoretical space leftover from Type I and Type II. I will omit this phenomenon here, because it is not clear if Strategy B alone should be assumed to establish control relations.
Strategy A for *pro* requires feature match, whereas PRO requires locality. This explains the difference in behavior between VA-infinitival and A-infinitival:

(57)

(a) Pekka pelottaa PRO nukku-yksin.
   ‘Pekka is frightened to sleep alone.’

(b) *Pekka pelottaa pro nukku-vansa yksin.
   ‘Pekka is frigthened to sleep alone.’

(c) Pekka pelkää pro nukku-vansa yksin.
   ‘Pekka fears sleep-V A.3sg alone

PRO must be controlled by the most local possible antecedent, whereas *pro* is subject-oriented due to the feature match requirement.

4.2.3 *MA*-infinitival

The MA-infinitival construction is illustrated in (58). First glance makes one believe that it has a specifier/subject position for a thematic subject and no agreement, predicting both types of null subjects to be impossible. The prediction is borne out.

(58)

(a) Pekka näki Merjan lähtemässä.
   ‘Pekka saw Merja leaving.’

(b) Pekka näki minut lähtemässä(*-ni).
   ‘Pekka saw I leaving(1sg)

(c) *Pekka näki __ lähtemässä.
   ‘Pekka saw leave.MA

Although this analysis is in agreement with the present hypothesis, and possible in theory, it is wrong. The thematic subject of the MA-infinitival is not part of the infinitival; it is in the matrix clause and hence takes the accusative (not genitive case). The MA-infinitival is an ECM-construction (ECM standing for “Exceptional Case Marking”). The correct analysis is (59).

(59) Pekka näki Merjan {PRO lähtemässä}.
   ‘Pekka saw Merja leaving.’

The null subject must be Type II, because the MA-infinitival never agrees and there is no space for a phrase at its Spec.

(60) *Pekka näki Merjan {tytön lähtemässä}.
   ‘Pekka saw Merja.ACC girl.GEN leave.MA

Notice that because the null subject is Type II, hence PRO, its only possible antecedent is the most local argument, *Merja* in (59). It cannot refer to the matrix subject if there is a more local argument. In (59), the only possible antecedent is *Merjan* ‘Merja.ACC’, and *Pekka* is not possible. See also the data in (61).
4.2.4 E-adverbial

The data from E-adverbial is provided in (62). The E-adverbial does not exhibit agreement, does not host an overt phrase at its Spec, and therefore generates a Type II null subject (62)(d).

\[(62)\]

\[(a)\] *Pekka\textsubscript{2} näki \{Merjan\textsubscript{1} siskon\} \{PRO\textsubscript{1,2} lähtemässä\}.
Pekka saw Marja's sister leave

\[(b)\] Pekka\textsubscript{1} oli \{PRO\textsubscript{1} lähtemässä\}
Pekka was leave.MA
‘Pekka was leaving.’

\[\text{4.2.5 VA-participle adjective phrase}\]

In addition to the MA-participle (§4.1.6), Finnish has another prenominal participle adjective phrase, the VA-participle illustrated in (65).
The V A-participle never agrees with an argument in phi-features (there is phi-concord, however), and there is no grammatical space for an overt subject argument.

The V A-participle therefore contains a Type II null subject and is analysed as in (67).

The Type II PRO is controlled by the hosting noun phrase, not the matrix subject. Example (67) refers to a dog \( _1 \) that has the property that it \( _1 \) eats a bone. Contrast this with the MA-participle (§4.1.6) hosting a Type I null subject in (68) which exhibits a subject-oriented control:

4.3 Type I and Type II impossible

4.3.1 ask + A-infinitival

The present analysis predicts there to exist constructions in which null subjects are impossible. One such construction is the one that exhibits no agreement but does have room for overt constituent at its Spec. Under these circumstances neither Type I nor Type II null subject is possible. An overt argument will be obligatory. This situation is exhibited by a combination of ask + A-infinitival:

(a) Pekka käski Merjan lähteä.
   Pekka asked Merja.GEN leave.A.0
   ‘Pekka asked Merja to leave.’

(b) *Pekka käski __ lähteä.
   Pekka asked leave.A.0

Type I null subject is impossible, because there is no agreement to license Type I, and Type II null subjects are unavailable due to the presence of the Spec position (that can and must be) filled by an overt phrase. Does this mean that obligatory control constructions do not have a Spec position at all, and that the PRO element sits in some postverbal position as illustrated in (70)?

(a) Pekka halusi lähteä-ä PRO __._.
   Pekka wanted leave-A
   ‘Pekka wanted to leave.’

19 It is interesting to consider how (67) is derived, because some element inside the participle adjective refers to the same element that it modifies semantically, as in \{...{...X\_i}...\}. This generates a semantic loop if unchecked. This and other facts leaves me with the impression that when the expression is composed, the noun phrase itself and the adjective (adjunct modifiers) are treated separately, possibly both syntactically and semantically, as if they were on a “different plane” (to borrow Chomsky’s expression). The meaning composition is ‘NP(x) & AP(x)’ and syntactically it is possible that the noun phrase and the adjective phrase are first created separately and then joined (i.e. the adjective phrase is inserted inside the noun phrase in a counter-cyclic fashion).
I have not been able to find any positive evidence for the existence of the Spec position in an obligatory control situation (71), but neither is there any positive evidence for the postverbal positioning of the PRO-element.

(71)

(a) Pekka halusi lähteä pian.
Pekka wanted leave soon

(b) *Pekka halusi pian lähteä.
Pekka wanted soon leave

Compare this to the VA-infinitival that has the Spec position that must also be filled in:

(72)

(a) Minä uskon {huomenna satavan}.
I believe tomorrow rain

‘I believe that it will rain tomorrow.’

(b) *Minä uskon {satavan huomenna}.
I believe rain tomorrow

So the ultimate syntactic structure of the obligatory control constructions remains somewhat undecided. My own intuition is that these constructions indeed have no Spec position and therefore the null subject (argued to contain only a set of phi-features later in this paper) is at Spec, vP.

4.3.2 Finite clause without agreement (=generic sentences)

There are finite clause verbs that do not agree with their thematic subject. Hence such verbs exhibit no agreement, but they do have the preverbal Spec position. The current hypothesis says that such constructions should not be able to license controlled null subjects. This prediction is borne out: they can occur without thematic subjects, but such subjects are not controlled; instead, they obtain a generic interpretation. The data is repeated in (69).

(73)

(a) Pekka luulee että __ täytyy herätä aikaisemmin.
Pekka thinks that __ must.0 wake.up earlier

‘Pekka thinks that one (not just Pekka) must wake up earlier tomorrow.’

(b) Pekka luulee että __ saa herätä myöhemmän.
Pekka thinks that __ can.3sg wake.up earlier

‘Pekka thinks that he (=Pekka) can wake up earlier.’

So under these circumstances we get the generic construction, in which the apparently subjectless clause refers to ‘people in general’. Neither Type I nor Type II null subject is present (due to lack of control). We have seen that some nonfinite clauses, adverbials in particular, are able to generate similar generic readings under same conditions. The same phenomenon occurred in the case of ESSA-adverbial §4.1.4.

4.4 Problem: KSE-adverbial

The salient properties of the KSE-adverbial are illustrated in (74). It exhibits full phi-agreement and a null subject, but it comes without the possibility of inserting an overt phrase to its Spec. This situation is ruled out by the present theory.
(74)

(a) Pekka luki {__ nukahtaa-kse-en}.  
    Pekka read sleep-KSE-3sg  
    ‘Pekka read in order to fall asleep.’

(b) *Pekka luki {hän nukahtaa-kse-en}.  
    Pekka read he.GEN sleep-KSE-3sg

Presence of agreement suggests that it is Type I, but there does not seem to be space for an overt constituent. Lack of Spec/EPP suggests Type II, which is ruled out by the presence of agreement. So the present theory predicts that the KSE-adverbial should be impossible. But let’s look more carefully.

The KSE-adverbial has one exceptional property: it cannot occur without agreement. All agreementless forms are ungrammatical (e.g. nukahtaakse- ‘sleep.KSE.0’). This property is not irrelevant, because it alone will prevent any overt full DP from occurring at its Spec. Recall that only pronouns can trigger non-finite agreement in Finnish. So if agreement is obligatory, pronouns are obligatory too. Now remember one thing about the VA-infinitival (§4.1.7): only the null subject triggered agreement. Neither overt full phrases nor pronouns did so. If this is the case with the KSE-adverbial, then the facts can be explained. If agreement is obligatory, and only null subjects trigger agreement, then the null subject, too, must be obligatory. We therefore have room for obligatory Type I null subject in the theory but only in very special circumstances.

4.5 Summary

There are two licensing environments for Finnish (controlled) null subjects: one immersed in agreement and EPP and another that is its mirror image. The former generates optional pro-like null subjects (Type I) while the latter generates obligatory control structures (Type II, PRO). They have also distinct antecedent selection properties. Type I is constrained by c-command and avoid feature conflict (locality plays no role). If the null subject itself has a feature such as ‘topic’, then it can try to match this feature as well, leading into additional discourse antecedent search that is not restricted even by c-command. Type II is constrained by c-command and locality. Discourse search is not possible.

5 An analysis

5.1 Visibility at the interfaces

I have argued that null subjects and morphosyntax are related in Finnish. Type I is licensed by an abundance of morphosyntax, Type II is its mirror image. I therefore think that the antique GB-theoretical intuition which says that morphosyntax and phonological visibility have something to do with each other must be on the right track. That being said, Type I and II null elements also require antecedents. Hence morphosyntax affects "visibility" both at PF and LF, a hypothesis reminiscent of the GB-theoretical interpretation of Case Filter (Chomsky 1986). Thus, elements in narrow syntax require some extra operation (reflected in morphosyntax) in order get connected with the extrasyntactic systems.

If we wish our theory to take ‘silencing after copying’ into account, then visibility at PF/LF must be something that syntax can manipulate. When a head or phrase is dislocated, the original must receive some modification Φ in order to not to generate independent interpretation at PF and LF.

The obvious overt effect of this operation in many languages is Case assignment. The PF-reflex of Φ is Case, therefore. In Finnish, Case assignment is a long distance relation. The operation sweeps into its c-command domain and marks (unmarked) arguments for interface visibility as soon as the head is merged. If the argument is later moved by another head, the original will lose the marking. The operation is cyclic and only looks downward in order not to re-enact copies for visibility. These intuitions are formalized in the next sections.

5.2 Null subjects: pro, PRO and the trace

PRO is a syntactically generated carrier of a thematic role that has no other features than its phi-features [ϕ], that furthermore cannot be interpreted at PF,LF. At PF, an empty space appears; at LF, a control relation will
be established to fix a reference.

An argument that lacks \( \Phi \) must be \([\Phi]\), hence a trace or PRO. PRO originates when an argument is merged that is never marked with \( \Phi \) due to the lack of morphosyntactic potential in a c-commanding head (§4.2). A trace \([\Phi]\) originates when the whole content of an argument (its lexical material and features) is copied into another location. An argument that is marked by \( \Phi \) will have Case assigned to it at PF.

PRO is controlled by the closest c-commanding referential phrase (8)(ii). If PRO = trace = \([\Phi]\), then traces of A-movement must be constrained by locality. This condition would be violated by nested or crossed A-movement paths, which provides one link to data. I have yet to find an instance of nested or crossed A-movement. A-bar movement is distinguished by the extra feature(s) \( F \) that triggers it, hence the trace will have the same feature. If the A-bar movement trace is \([\Phi][F]\) and control is by locality, then there cannot exist nested/crossed A-bar movement paths. Examples of nested (a) and crossed paths (b):

(75)

(a) *Keneltä Peppa epäili että Merja-ko __ varasti sukat __?
who Peppa doubted that Merja-Q stole socks

`<--------|
                     `From whom Peppa suspected that it was Merja who stole the socks.'

(b) *Minkä, Peppa pohti että kenelle Jukka antoi __ __?
What Peppa wondered that to.whom Jukka gave

`-------------------------------------|
                    `What was it that Peppa wondered that to whom Jukka gave it?'

The prediction is that Finnish should not exhibit crossed or nested A- or A-bar movement paths. Data in (75) suggests that it would make sense to test the prediction. If this is true, then (8)(ii) can be replaced by (76).

(76) \textit{Control for \([\Phi]\) (=PRO, trace)}

\([\Phi]\) is interpreted at LF by finding the closest possible c-commanding element able to provide its reference.

The overt pronoun \textit{tämä} ‘this’ has similar antecedent selection properties in Finnish.

(77) Pekka, käski Jukan kertoa Merjalle että tämä, __2,3 on vääran.
Pekka told Jukka to.tell to.Merja that this is wrong

`Pekka asked Jukka to tell Merja that she (*he) is wrong.'

\textit{Tämä ‘this’} (in this context) is the closest overt counterpart to PRO/trace/\([\Phi]\) that I can find in Finnish. The fact that such an overt pronoun exists further supports the proposition that (76) is part of the architecture of Finnish syntax.

Small-\textit{pro} has different properties. In many languages, it possesses definite interpretation and hence has feature \textit{D}. Finnish \textit{pro} exhibits definite interpretation in first and second person, but not in third person. A definite \textit{pro} differs from PRO/trace/\([\Phi]\) in that it is visible and interpretable at LF, but not at PF. But when it lack definiteness, as in the case of Finnish third person \textit{pro}, its control properties, which are those of (8)(i), still differ from those of bare \([\Phi][8](ii)\). We have argued in H&B that the Finnish third person null pronoun resembles its overt counterpart in its control properties. Like an overt third person pronoun, the null version can be controlled by a nonlocal c-commanding element or something from discourse, but the difference is that in the case of a null pronoun Strategy A predominates (78) and B can be successful only if it does not select the same element as A.

(78)
(a) Pekka uskoi että hän voittaa kilpailun.  
Pekka believed that he wins competition  
‘Pekka believes that he (Pekka/somebody else) wins competition.’

(b) Pekka uskoi että pro voittaa kilpailun.  
Pekka believes that wins competition  
‘Pekka believes that he wins the competition.’

So in (78)(a) the overt pronoun can pick up any suitable antecedent (as long as it agrees with Binding Condition C) even in the presence of a c-commanding topic. To get the second interpretation, in which hän ‘he’ refers to something in the discourse, the referent is presupposed to be known from previous discourse. This evidence warrants the conclusion that the control mechanism of the null third person pronoun in (78)(b) borrows something that is available for overt or covert third person pronouns at large in this language (78)(a). The same mechanism is possibly used in generating quantifier-variable readings of various kinds (79), where similar locality conditions are not necessarily in operation (e.g. indefinite QNP with wide scope reading) and the c-command condition is relevant.

(79) Jokainen uskoo että joku on syyllinen.  
everybody believes that somebody is guilty  
|---------------------------------------------------------------|  
∀ > ∃, ∃ > ∀

To make this happen a decision has to be made somewhere that the QDP/pronoun does not get independent reference at LF (Strategy B rejected). Normally the decision creates ambiguity, which might be disambiguated outside of syntax at least in some occasions (no LF-movement in every case). In the case of null pronoun, both strategies run in parallel, but Strategy B cannot pick up independent candidates if it finds the same constituent as Strategy A (i.e. there is overlap in their extension). That is, Strategy B is bound by the solutions found by A. This gives us the following typology:

(80) Definiteness  
[+D] = definite (Strategy B (8)(i))  
[∅] = variable (by (76)/(8)(ii) ‘find c-commanding antecedent as fast as possible’)  
[-D] = indefinite (Strategy A ‘narrow scope/bound reading’ and B ‘wide scope’ (8)(i))  
uD = unspecified (Strategy B bound by Strategy A (8)(i))

We can then say that the Finnish third person null pronoun pro that lacks Φ is marked as uD, following in essence Holmberg et al. (2010), and that similar null subjects in Italian have +D. Additional features could be postulated if needed. For example, tämä ‘this’ = [∅] + something else. I have argued elsewhere[20] that the overt third person pronoun hän ‘he’ has additional features (honorific, human, focus) besides [∅].