ON THE STRUCTURE OF PREDICATE NP

Anders Holmberg

Abstract. The central hypothesis in this paper is that a predicate NP is a maximal projection which is an open expression, meaning that it has an A-trace in its highest spec-position functioning as a predicate variable, while an argument NP is a closed expression, meaning that it has the head of an A-chain, usually pro in its highest spec-position. The distribution of articles, definite as well as indefinite, in combination with various attributes is explained as a consequence of licensing conditions on the highest spec-position and the categories it hosts. Additional bitherto unnoticed facts concerning possessors in predicate NPs are discussed.

Introduction

The Swedish examples (1b) exemplify a classical problem in Mainland Scandinavian NP syntax: A free definite article (nondeictic) is excluded in (1) but obligatory in (2), where the noun is modified by an adjective (DEF = suffixed definite article).

(1) a. (*den) boken
   the book + DEF

b. *den nya boken
   the new book + DEF

A similar pattern is shown by predicative NPs:

(2) a. Per är *(en) pilot.
   Per is a pilot

b. Per är *(en) duktig pilot
   Per is a competent pilot

One of the questions I will address in this paper is: Why is the (free) article obligatory in (1b) and (2b)? I will argue that the reason is basically the same in both cases, namely, the article is required in order to license a spec-position for an empty category which is bound NP-internally in the case of argument NPs, but NP-externally in the case of predicative NPs. In the absence of a modifier the head noun itself licenses the required spec-position. The theory to be outlined is intended to explain the distribution of articles and other determiners in (1) and (2) and a number of related constructions.

Another puzzle, also involving NP with a modifier, which I will address is exemplified by (3a,b):

(3) a. Per är Johans lärare, och Lisa är också Johans lärare.
   Per is Johans teacher and Lisa is also Johans teacher

   I wish to thank the non-anonymous referee Guglielmo Cinque for many helpful comments. Thanks also to the audience at the NP workshop in Umeå.
b. Per är Johans nya lärare, och Lisa är också Johans nya lärare. 
Per is Johan’s new teacher and Lisa is also Johan’s new teacher.

The NP containing a genitive specifier can have what I call a pure predicative reading in (3a), as shown by the fact that the sentence is acceptable with the second conjunct added. The same NP in (3b) containing an adjective in addition to the genitive specifier cannot have this reading.

I crucially adopt a version of Williams’ (1980) and Rothstein’s (1983) theory of predication according to which a predicate is the maximal projection of a lexical head containing an open argument position, against the theory advocated by for instance Stowell (1983, 1989) according to which a predicate is an X’ level phrase.

As a methodological, heuristic principle I will assume minimal structure, never postulating more abstract heads or more structure than is required by X-bar theory and the need to license the empty category in the highest spec-position of the NP. I will use the traditional term ‘NP’ to refer to nominal arguments as well as predicative nominal phrases. When needed, I will distinguish between ‘np’, that is a nominal phrase headed by a nominal functional category (where the exact categorial identity of the functional category is not essential) and ‘NP’ in the restricted sense of the phrase headed by the (common) noun. All the non-English examples are Swedish. Most of the generalizations proposed hold for Norwegian as well, with a few more exceptions (mostly involving doubling of articles) for Danish. See Santelmann (this volume) and Kester (this volume) on certain differences between Swedish and Danish NP syntax.

1. Theoretical assumptions: predicates and arguments

Semantically, a predicate denotes a property. Predication is when the property is ascribed to an individual or set of individuals. At the level of LF, I assume a predicate is an open, one-place function, hence has the general form (4) (following Frege; see Rothstein 1983).

(4) \( P(x) \)

where \( P \) is a property, and \( x \) is the open argument position, the predicate variable so-called. Predication occurs when the open argument position is linked to an argument outside the expression \( P(x) \).

In a standard, finite sentence, the VP is the predicate, i.e. the open expression containing a predicate variable. The category saturating the predicate is the subject.

(5) \([\text{NP } [\text{VP } \ldots x \ldots ]] \)

Until quite recently standard grammatical theories did not assume any syntactic correlate (say, in s-structure) of the predicate variable. But now it is widely assumed that the surface subject argument starts out inside the
predicate, within the thematic domain of the verb, being moved out of the predicate to spec(IP), usually in overt syntax but in some cases in LF.

\[ \{ \alpha \mapsto [\text{NP} | \text{VP} \mapsto \text{V}] \} \]

There are various theoretical and empirical arguments supporting this hypothesis; see Koopman and Sportiche (1991), Guiffroy, Hung, and Travis (1992). The hypothesis that the external argument is always base-generated inside the predicate makes possible a very simple mapping between s-structure and the level of representation where predication is represented. While Rothstein (1983) had to postulate a special subject-predicate linking rule (cf. also Williams 1980), we can take predication to be simply A-binding of the trace in spec(XP) by a category outside XP. Formally, the notions subject, predicate and predication are defined as follows:

\[ \{ \alpha \} \mapsto [\text{NP} | \text{VP} \mapsto \alpha \}

I assume the level where predication occurs, i.e. where the predication configuration must be represented, is LF. This must be assumed if it is true that subject movement can, in some languages/constructions be postponed until LF.

Relativized Minimality (Rizzi 1990) ensures that the EC which is A-bound by the subject is the highest argument (position) in the predicate. Relativized Minimality prevents crossing dependencies of the same kind, informally speaking. For instance, it rules out (8), since the object has moved to spec(IP) across an A-position, namely the VP-internal subject position.

\[ \{ [\text{NP} | \text{VP} \mapsto \alpha] \mapsto [\text{X} \mapsto \alpha] \]

Another (less controversial) assumption I make is that all phrase structure is composed of subtrees of the form (9):

\[ [\text{X} \mapsto \alpha] \mapsto [\text{VP} | \text{Y} \mapsto \text{Z}] \]

Yet another crucial assumption is the following:

\[ \{ \alpha \} \mapsto [\text{NP} | \text{VP} \mapsto \alpha \}

If \( \alpha \) and \( \beta \) are in a spec-head agreement relation, then \( \alpha \) or \( \beta \) but not \( \alpha \) and \( \beta \) may be empty.

Provided one of the two terms in an agreement relation is realized, the other term can always be identified by virtue of the agreement. Principle (10) holds at LF. At PF both \( \alpha \) and \( \beta \) may be empty. For instance a wh-trace is empty at PF, but does not count as empty in LF (see Chomsky 1992).²

An argument is an internally closed category, i.e. it does not contain an open position which can be A-bound from outside. Instead, the highest spec-position in an argument must be licensed internally, not by virtue of antecedent-government from outside (assuming that predicates and arguments have exactly the same phrase structure, both being composed of subtrees of the form (9)). Thus the highest spec-position in an argument must either be lexical or, if it is empty, it must be an empty pronoun (pro), licensed through spec-head agreement. The empty pronoun can be thought of as an empty demonstrative. It provides the referential/deictic aspect of the argument, while the head noun provides the descriptive aspect. The structure of a predicate is as in (11a). The structure of a typical argument is as in (11b), where the index indicates the licensing relation in both cases.³

\[ \{ \text{NP} | \text{VP} \mapsto [\text{X} \mapsto \alpha] \}
\]

Now apply this theory to NP. The structure of a sentence with a predicate NP is basically as in (12) (n.p = phrase headed by a nominal functional category, in this case an indefinite article).

\[ \{ \text{NP} | \text{VP} \mapsto [\text{X} \mapsto \alpha] \}

² There are probably many potential counterexamples to (10). Guglielmo Cinque (p.c.) suggests (i), analyzed as in (ii):

(i) the books I like
(ii) the books that I like

However, although spec(PP) is empty in PF it is not necessarily empty in LF, that is if the operator is which, deleted in PF. See also Kayne (1993) for arguments in favour of the raising analysis of relative clauses so-called, according to which the structure of (i) is something like (iii):

(iii) the books that I like

³ Campbell (1993) proposes a theory of NP structure (DP structure) where specDP contains an abstract operator binding a variable in specNP, as shown in (i):

(i) \[ [\text{NP} | \text{VP} \mapsto [\text{X} \mapsto \alpha] \]

The role of the (definite) article in Campbell's theory is to license a spec-position for the abstract operator serving as the internal closure of the argument. In the present theory the role of the article in argument NPs (or DPs) is rather to license a spec-position for the EC corresponding to it in (i), as shown in (ii):

(ii) \[ [\text{NP} | \text{VP} \mapsto [\text{X} \mapsto \alpha] \]

In both theories there is an EC in the book. This EC is the referential element of which the noun book is a description (informally speaking). In Campbell's theory the EC is a variable bound by an operator in specDP. In the present theory the EC is an empty (demonstrative) pronoun licensed through spec-head agreement with the article. In Campbell's theory demonstratives are overt operators in specDP; in the present theory demonstratives are overt forms of the referential/deictic element of the argument: \[ \{ \text{NP} | \text{VP} \mapsto [\text{X} \mapsto \alpha] \}

© The Editorial Board of Studia Linguistica 1993.
(12) a. Peter is a teacher
   b. \([\llbracket \text{Peter, is}\rrbracket, \text{a teacher}])

The subject is spec(nP) in d-structure, but is raised to spec(IP) in s-structure, thus the configuration required for predication is created.

The structure of an argument NP is roughly as shown in (13b), where e is an empty pronoun licensed by the article.

(13) a. The teacher has arrived.
   b. \([\llbracket \text{The, teacher}\rrbracket, \text{a}\])

Now consider (14).

(14) Peter is the teacher

While (12) represents a predicational sentence, with a predicational use of the copula, (14) is ambiguous. On one reading it is an equational (also called identificational) sentence, with an equational use of the copula. It contains two referential expressions, where the reference of one expression (Peter) is equated with the reference of the other expression (the teacher). One the other reading the expression the teacher is not referential (in the same sense) but denotes a property which happens to hold on only one individual, in the universe of discourse (see for instance Stowell (1989) for some discussion).2 Simplifying matters I will assume that the expression in question is closed under both readings, that is to say I assume it contains an internally licensed empty pronoun in both cases, as shown in (15), unlike the case in (12).

(15) \([\llbracket \text{Peter is}\rrbracket, \text{the, teacher}])

I will refer to (12) as a 'pure predicational construction' and to (15) loosely as an 'identificational construction' (meaning that the referent of one expression is identified with the referent of the other expression or as the holder of the unique property denoted by the other expression). The following is a test which distinguishes between pure predicational and identificational constructions.

(16) a. Peter is a teacher, and Lisa is a teacher, too.
   b. ??Peter is the teacher, and Lisa is the teacher, too.

A non-unique property can be ascribed to more than one individual. A referring expression cannot refer to two distinct (sets of) individuals (in

2 In fact the theory outlined here makes possible a formal distinction between the two readings of the teacher. Assume that, much as in Campbell's (1992) theory briefly discussed in the preceding footnote, the EC in spec(nP) in an unambiguous argument (as in (13)) binds an EC in spec(NP). Assume, unlike Campbell, that this is a case of A-binding. In other words, the empty pronouns has A-moved from spec(NP) to spec(nP). The predicational reading of the teacher could now be represented as in (i): the empty pronoun has not moved to spec(nP). Instead spec(nP) contains an EC licensed by antecedent-government, as in the pure predicational construction.

(i) John is \([\llbracket \text{John}\rrbracket, \text{the, teacher}])

the same universe of discourse), nor can a unique property be ascribed to more than one (set of) individual(s) (in the same universe of discourse).

2. Articles and adjectives

In Swedish, predicate NPs occur with or without an indefinite article. Most singular nouns require an indefinite article, but there is a class of nouns which do not need it. Plural nouns do not take an indefinite article. If a singular noun is qualified by an attributive adjective or a relative clause the article is obligatory. This is all illustrated in (17).

(17) a. Per är (en) pilot.
   b. Per is a pilot
   c. Per och Lisa är piloter.
   d. Per och Lisa are pilots
   e. Per är (en) idiot.
   f. Per is an idiot
   g. Per är (en) duktig pilot.
   h. Per is a competent pilot
   i. Per är (en) pilot som man kan lita pa.
   j. Per is a pilot who one can rely on

For cases like (17a), the simplest analysis (following the methodological principle of assuming minimal structure) is (18). What is special about these nouns is that they license a subject argument in spec(NP). In s-structure the subject moves to spec(IP), thus creating a predicational structure.

(18) Per är \(\llbracket\text{pilot}\rrbracket\)

Most nouns do not license a subject argument in spec(NP). For these nouns, I propose, you need an indefinite article to license a spec-position for the D-structure subject (= the predicate variable in LF).

(19) \([\llbracket \text{Per}\rrbracket, \text{en, idiot})]

The nouns which do not need an article seem to form a semantically definable class, although it is not quite obvious how to define it. Roughly speaking it consists of nouns denoting occupational, social, or regional identity. (Agent nominals, marked by the suffix -are, e.g. lärare 'teacher', all fall into this class.) Let us say that these nouns be virtue of their semantics assign a role to their specifier, thereby licensing it. Other nouns, such as katt 'cat', bord 'table', idiot 'idiot', etc. do not assign a role to the specifier, and therefore do not license an argument in this position.6

6 Note that nouns like katt, bord, idiot, etc. can occur as predicates without an article.

(i) Jag är katt, och Johan får vara bord.
   I am (a) cat, and Johan can be (a) table

© The Editorial Board of Studia Linguistica 1993.
Plural nouns never need an indefinite article. I assume that plural NPs have a covert indefinite article, licensed by the plural morphology. Plural NPs are headed by a functional head $n$ which is 'visible' (in a technical sense) if its value is $[+PL]$. In this case no article is required. The functional head $n$ is invisible if its value is $[-PL]$. In this case an article is required, to make $n$ visible. I assume a plural indefinite noun moves to $n$, thus licensing $n$ and its spec-position.

(20) [sp Per och Lisa [sp [n+PL]] [n piiloter]]

In the spirit of Chomsky's (1992) theory of subject-verb agreement, I assume the noun moves to $n$ to have its number morphology checked. If number is $[+PL]$, hence visible (corresponding to 'strong Agr' in Chomsky's theory), movement is triggered in overt syntax. If it is $[-PL]$ (hence invisible) movement is delayed until LF. In this case an article must be inserted in overt syntax.

A singular indefinite argument NP cannot do without an overt article, regardless of choice of head noun.

(21) Här kommer *en pilote.

Here comes a pilot

This is because the licensing conditions on the spec of an argument are stricter than the conditions on the spec of a predicate. The spec of a predicate is an EC which is licensed by antecedent-government, but the spec of an argument is (normally) an EC which must be licensed nP-internally. The overt article, I assume, is required to license pro in spec(nP).

(22) [sp pro, [sp, en, [sp, sp [n, n, [n, n, [sp, pilote]]]]]

In Scandinavian there are two forms of definite articles, a suffixed form and a free form. In Swedish, and more generally the Mainland Scandinavian languages, the free definite article is obligatory when the noun is qualified by an attributive adjective. It also occurs (not obligatorily) when the noun is qualified by a (restrictive) relative. In other contexts the free definite article is excluded.

(23) a. Har du sett piloten?

Have you seen the pilot

b. *Har du sett den piloteen.

Have you seen the pilot

c. Har du sett *den nya piloten.

Have you seen the new pilot

However, the interpretation is then, obligatorily, that the subject enacts the role of the entity denoted by the head noun, in for instance a play or a charade. This interpretation could be formally expressed as induced by an empty operator interpreted roughly as 'enact' (similar to one reading of the proposition an). The operator may be formally an abstract V-bar head taking the subject as its specifier. This suggests that nouns like lärare etc. also project such a head, in which case their subject is not in spec(NP) after all.

d. Har du sett (den) piloten som ska köra vårt plan? Have you seen the pilot who will drive our plane

Consider first the suffixed form. Given the principle of minimal structure, the null hypothesis is that a nominal argument consisting of just a noun with a suffixed definite article has the structure (24):

(24) [sp pro, [sp, pilote+en,]]

The idea is that the definite form of the noun licenses pro in spec(NP). Consequently the NP satisfies the crucial condition on an argument: it is closed.

Before turning to the free definite article we need to take a stand on the analysis of attributive adjectives, a highly controversial issue. I assume that they are specifiers of N (sisters of N'). Constructions with stacked adjectives are formed as in (25) (cf. Cinque 1992):

(25)

The difference between the indefinite ('strong') and the definite ('weak') form of the adjective is that the indefinite form is the spec of an indefinite noun, i.e. it agrees (only) with an indefinite noun, and the definite form is the spec of a definite noun. Assume that the adjective is either $+$ or $-def$

7 Either the free article or the suffixed article or both must be realized. The form without a suffixed article is preferably used when the NP is used nonspecifically, as noted by von Bremen (1983).

(i) [Den pilot som ska köra vårt plan] måste vara erfaren, the pilot who is to drive our plane must be experienced

(ii) A noun with a definite suffix cannot have anything but pro in spec(NP).

(iii) *planets pilote

The plane's pilot

As noted by Svenonius (this volume), following Holmberg (1987), some Swedish dialects have a construction like (i), subject to certain semantic and syntactic conditions.

© The Editorial Board of Studia Linguistica 1993.
(encoded as the definite or indefinite form). By virtue of spec-head agreement, the head N must have the same feature value as its specifier AP. In LF, the head noun (bil in this case) moves through the empty n positions to the highest position, thus creating a head-chain headed by the lexical noun. Formation of such a chain is possible only if each N/n has the same feature values, including the value for [±def].

As long as we only consider singular NPs, an attributive adjective has the same effect in indefinite and in definite NPs, predicates as well as arguments: it requires a (free) article at the head of the NP. I repeat two examples:

(26) a. Per är *(en) duktig pilot.
    Per is a competent pilot
b. Har du sett *(den) nya piloten.
    have you seen the new pilot

Presumably the article is obligatory for essentially the same reason in both cases. The explanation is straightforward in the present framework: The attributive adjective occupies the spec(NP) position. Consequently the NP must be expanded with the help of an article, to create a new spec-position for the (trace of the) subject in (26a), and for pro (the closure of the argument) in (26b). The structures are shown in (27a,b), respectively.

(27) a. Per, [... [pr e1 [, e perf duktig [, e pilot]]]
    [... [pr pro1 [, d den , pro nya , d el piloten]]]

b. As for (restrictive) relative clauses I assume (tentatively) that they, too, occupy spec(NP). Consequently they, too, make the addition of an article necessary, to project a spec-position for the subject (in predicate NP) or the closing pro (in argument NP). The structure of (28a) is given in (b), and the structure of (28c) is given in (d):

(28) a. Per är en pilot som man kan lita på.
    Per is a pilot who one can rely on
b. Per, [... [pr e1 [, e perf pilote [, e pro]]]
    [... [pr pro1 [, d den , pro nya , e el piloten]]]
    [e som man kan lita på]]]
c. (den) pilot(en) som ska köra vårt plan
    the pilot+DEF who will drive our plane
b. [... [pr pro1 [, d den , e el pilote [, pro]]]
    [e som ska köra vårt plan]]]

In the case of plural NPs there is a difference between predicative NPs and definite argument NPs: The former do not take an article ( overtly), but the latter do.

(29) a. Per och Lisa är duktiga piloter.
    Per and Lisa are competent pilots
b. Har du sett *(de) nya piloter.
    have you seen the new pilots+DEF

This is, again, explained by the (assumed) fact that the highest spec of the predicate NP is a trace, licensed by antecedent-government, while the highest spec of the argument is pro, which must be licensed through spec-head agreement. As mentioned, I assume there is a covert functional head marked [+PL] in (29a), heading the predicate NP. This head projects a spec-position for the (trace of) the subject, which is all that is required. There is a covert functional head n marked [+PL] in (24b) as well, projecting a spec-position. However, this phonetically empty head cannot license pro, given principle (10), repeated here.

(10) If α and β are in a spec-head agreement relation, then α or β but not both may be empty.

3. Possessive genitive specifiers

An NP with a prenominal genitive specifier is usually an argument.

(30) Har du sett Johans lärare?
    have you see Johan’s teacher

Less often noted or discussed is the fact that a genitive specifier may be included in a predicate NP, even a pure predicate (in the sense defined above).

(31) Per är Johans/min lärare, och Lisa är också Johans/min lärare.
    Per is Johan’s/my teacher, and Lisa is also Johan’s/my teacher

Here Johans lärare denotes a property which can be shared by many individuals. If Johans lärare can be a predicate, there must be an empty spec-position in the NP above the genitive specifier, functioning as the predicate variable. Thus the structure must be roughly as in (32):

(32) Per, [... [pr e1 [, n [e jog Johans lärare]]]]

Now consider the fact that adding an adjective to the construction blocks the pure-predicative reading.

...Matters are complicated by the fact that indefinite argument NPs can manage within an indefinite article in certain contexts, primarily when they are used generically.

(i) a. Har du någon gång sett nya piloter?
    have you ever seen new pilots
b. Nya piloter är opliktiga,
    new pilots are unreliable

The absence of an article in these examples can be explained by recourse to the special properties of generic pro. As shown by Rizzi (1986) generic/non-specific pro can be licensed in contexts where specific pro is excluded. C. Cinque (p.c.) points out that the possibility of (i) indicates that appeal to genericity may not be sufficient.

(ii) Nya piloter springer upp och ned för trappan,
    new pilots are running up and down the stairs

In this example the indefinite NP can refer to a specific set of pilots, namely those running up and down the stairs at a specific time and place. See Stowell (1989) for discussion.
(33) Per är Johans nya lärare (och Lisa är också Johans nya lärare).
Per is Johan's new teacher and Lisa is also Johan's new teacher.

Note that this is not a semantic problem. You can say:

(34) Per är en ny lärare till Johan, och Lisa är också en ny lärare till Johan.
Per is a new teacher of (lit. to) Johan, and Lisa is also a new teacher of Johan.

The following is an account which observes all the assumptions made so far, including minimal structure. The possessor NP starts out inside the thematic domain of N, say as a complement of N (as in Fiva 1985). It can remain in complement position with insertion of a preposition, or it can move to spec(NP) giving in the predicative Johans lärare the possessive NP stays in spec(NP), n being empty, as in (32). Now, if there is an attributive adjective, as in (33), the adjective will occupy spec(nP) and thus block movement of the possessor to spec(NP). Either the possessor remains in the complement position, as in (34), or it moves to a position higher than spec(NP). If the only available position is the spec(nP) position, the result will be a closed nominal projection.

(35) en [Jo]hans, [lärare e, 1]n [nya, 1]

The theory developed so far is simple and straightforward, and it accounts in a principled way for the distribution of articles in predicate as well as argument NPs, and it can explain the rather surprising contrast between (31) and (33). The theory has some weak points, though. One problem is that we seem to predict that a predicate NP with a pronominal genitive specifier should have an indefinite article, just like a predicate NP with an attributive adjective. But an indefinite article cannot be combined with a pronominal genitive specifier:

(36) Per är (*en) Johans lärare.
Per is Johan's teacher.

The question is, why can the functional head n be empty in (32), but not when spec(NP) is filled by an adjective? Apparently the possessor morphology is somehow capable of licensing an empty n, and excluding an (a) overt article. The analysis (27) is not well suited to express such a relation between n and the possessor morphology. I therefore propose the following modification of the analysis of predicative NPs with a genitive specifier:

(37) Per [Jo]hans, [lärare e, 1]n [Poss, [nP [lärare e, 1]]]

Here the attributive genitive NP is not a specifier of N but of a head Poss (in S-structure), which licenses the genitive morphology by virtue of spec-head agreement. A variant of (37), corresponding more closely to the

theory of Fiva (1985) and Abney (1987) (for English), would have the genitive -s base-generated in Poss, criticising to the lexical specifier in PF. In any case, we can now postulate that Poss moves to n in LF, thereby n is not empty at the relevant level of representation.

An interesting exception to the generalization according to which articles and genitive morphology have complementary distribution was discussed by Tarald Taraldsen in a talk at a workshop on typology in Tromsø, May 1991: swear-words may occur as genitive specifiers (in Norwegian and Swedish alike) in which case an article, definite or indefinite, is obligatory:

(38) a. Hans teori är *en helvetes röra (och hennes teori är också his theory is a hell's mess and her theory is also en helvetes röra).

   a hell's mess (i.e. 'a hell of a mess')

b. Den satans teorin fungerar inte. (*without den) the satan's theory works not 'The damn theory doesn't work'

Obviously the swear-word here functions not as an argument but as a modifier, thus more like an adjective than like a possessor. A possibility is to base-generate the swear-word in spec(NP), like an AP, genitive morphology and all. It then follows that the article is obligatory, since there is no head Poss to license empty n through head movement in LP. Another possibility is to assume that the genitive swear-word is base-generated in the spec of a head Poss, as in (37), in which case the structure will be as in (39):

(39) Hans teori, - [Jo]hans, [lärare e, 1]n [Poss, [nP [röra]]]

But whereas Poss in (37) has a feature encoding referentiality, call it [+Ref], Poss in (39) does not. Assume the feature [+Ref] is crucial for licensing empty n (i.e. it functions like an article). Assume, furthermore, that Poss has the feature [+Ref], but with a value which is inherently open, being specified only through spec-head agreement with a genitive specifier. If the specifier is a non-referring expression, as in (39), Poss is [+Ref], and thus not able to license empty n. If the spec of Poss is a referring expression, as in (37), Poss is [+Ref], and this it can license empty n by head movement in LF.

This opens up the possibility of analyzing attributive adjectives as specifiers of a functional head corresponding to Poss in (37), or more closely to Poss in (39). Since adjectives are not referring expressions, the functional head with which they agree will not have the feature required to license empty n. I will not consider the details of such a modification of the theory in the present paper. Note, however, how a consideration
of a wider array of facts seems to force us to abandon the minimal structure hypothesis, leading to a theory including a richer variety of functional heads.

References

Kayne, R. 1993. The antisymmetry of syntax. Unpublished ms., Graduate Center, CUNY.

Anders Holmberg
Department of Linguistics
University of Umeå
901 87 Umeå
e-mail: anders@ling.umu.se

© The Editorial Board of Studia Linguistica 1993.

CONTRIBUTIONS TO STUDIA LINGUISTICA

Contributions. Three copies of articles and reviews should be sent in typescript to the Editorial Secretary, Merle Horne, Dept. of Linguistics, U. of Lund, Helgolmabacken 12, S-223 62 Lund, Sweden. Original papers only will be considered. Manuscripts are accepted for review with the understanding that the same work is not concurrently submitted elsewhere, and that all persons listed as authors have given their approval for the submission of the paper; further, that any person cited as a source of personal communication has approved such citation.

Style. Intending contributors should ensure that their manuscripts conform to the standards laid down in the LSA Style Sheet (printed periodically in the LSA Bulletin). Note: in particular:
(a) Footnotes, figures and tables must be submitted on separate sheets. Figures must be reproducible originals.
(b) Phonetic transcriptions should, wherever possible, make use of the symbols and conventions of the International Phonetic Alphabet.
(c) Bibliographical references at the end of each article should conform to the following model:


References made in the article or review should be incorporated in the text in the following way:

Chomsky & Halle (1968:169) claim that...
Various authors (e.g., Chomsky & Halle 1968, Kiparsky 1969) claim that...

All copy should be double-spaced throughout (including footnotes). Only one side of the sheet should be used and margins of 3 cm should be left on all four sides of each sheet. All pages (including footnotes, figures and references) should be numbered consecutively. Use indenting for beginnings of paragraphs.

Titles and headings. While we recommend the use of subtitles in articles, no part of a title or subtitle should be underscored. Use normal capitalization: capitalize only the first letter of the first word and such words as the orthography of the language requires to begin with a capital letter. Reviews should begin with a full citation, including number of pages of the work reviewed.

Abstract. The typescript of an article should be accompanied by an abstract on a separate sheet (in three copies) of about 100 words giving an informative summary of the conceptual content of the article.

Proofs. First proofs only will be sent to the author for checking and should be returned, within seven days of receipt, to the Editorial Secretary. To keep costs down, only absolutely essential corrections against manuscripts can be accepted.

Offprints. Thirty offprints of the article or review will be provided to authors free of charge. Further offprints may be purchased if they are ordered at proof stage.