HIL Manuscripts

Volume 1, Issue 3

September 1993

Gertjan Postma

The Syntax of the Morphological Defectivity of BE*

BE is a highly irregular and defective[1] verb cross-linguistically. In English for instance, the past form of BE is not [I be-ed] but [I was]. Generally, this is taken as a lexical idiosyncrasy of BE: the form [I be-ed] is ill-formed because of the mere existence of [I was] in the lexicon. If so, we must presume the same for German, Dutch, Latin, Greek, Russian, Hungarian, etc. Often, the capricious behaviour of BE is attributed to its lexical conservatism. However, BE in the European languages deviates much more from Indo-European than the laws of phonological change would justify. Moreover, such a phonological explanation would presuppose that BE was ever a regular verb. This presupposition is doubtful.[2] The cross-linguistic defective nature of BE makes it probable that [was] is in the lexicon as form of BE because of the *structural impossibility* of [I be-ed] or [I am-ed], rather than the other way around. If this is true, the defective nature of BE does not stem from the lexicon, but must have an inherent morpho-syntactic origin.

In this paper, we will make a first attempt to study the defectivity of BE from a morpho-syntactic point of view. We will argue that if two roots supplete each other within a paradigm, the complemenatary distribution of these roots reflect a complementarity of *syntactic* features.[3] We will concentrate on the defectivity of the participle of BE, as it fluctuates within the Western-European languages in an interesting way. We will argue that *morphological* defectivity of BE correlates with the *syntactic* phenomenon of auxiliary selection. From this, we get a first indication of the nature of the verb BE. We will argue that BE, despite the many features that it shares with verbs, behaves like a pronoun.

---

*An abbreviated version originally appeared in "*Totally Affected*", A Collection of Twelve Short Articles by Students of Teun Hoekstra, Written at the Occasion of His Fortieth Birthday, Jan 1993. This is annotated version of the paper read at the GLOW conference in Lund, April 5-7, 1993. I am grateful to Hans Bennis, Teun Hoekstra and Sergio Menuzzi for their comments on earlier versions of this paper. I also thank Sjef Barbiers, Guian de Bastos, Ellen Brandner, David Denison, Liliane Haegeman, Tom Johnston, Aafke Hulk, Samir Khalaily, Alma Naess, Carme Picallo, Josep Quer, Piet van Rheenen and Nigel Vincent for supplying indispensible data and grammaticality judgements to me. Finally, I thank the audience of GLOW 1993 for response, suggestions and discussion. This research was carried out as part of a project of the Netherlands' Research Organisation (NWO), grant. 300-171-019.

[1] We call a root /R/ defective in a certain form if this form cannot be not made on the basis of /R/ (even if an other root suppletes this form).

[2] In Sanskrit, the verb BE (present tense: *asmi, asi, asti, smas, stha, santi*) was already defective (punctual past: *abhut* 'he was') cf. Gonda 1966:53,63. See also Schönfeld & Van Loey 1970:147.

[3] An allusion to the possibility of lexical formations that are excluded by syntax ("syntactic redundancy rules") can be found in (Chomsky 1965:170), although no instance was given.

There is evidence that copular verbs and pronouns share properties. In the Semitic languages for instance, pronouns can in certain contexts be used in the function of a copular verb (Doron 1983, Eid 1991). Etymologically, there is evidence that the Indo-European root *-es has a pronominal origin (Shields 1978). The same holds for Chinese (Li & Thompson 1978).

Our contribution to the discussion on the nature of the copular verb is to argue that the copular verb in the present-day Western-European languages *still* has crucial pronominal properties. The similarity of BE to pronouns shows up in the fact that BE shows a ban on local binding, i.e. it observes Chomsky's binding theory, just like pronouns do.

1. Defectivity of BE and Auxiliary selection

The selection of the auxiliary BE strongly correlates with the occurrence of a suppletive participle to BE. Have a look at Table 1.

1

	Language	BE_{inf}	$BE_{perfect}$	AUX	Suppl.	
a.	Italian	essere	loro sono **stati** (from: **stare**)	BE	yes	
b.	Occitan	essèr	els sont **estats**	BE	yes	
c.	Balearic Catalan	ésser	ells són estats	BE	yes	
d.	Sardinian	éssere	issos sun **istatos**	BE	yes	WS_{ptc}
e.	Dutch	zijn	zij zijn **geweest** (from: **wezen**)	BE	yes	
f.	German	sein	sie sind **gewesen**	BE	yes	
g.	Swiss French[4]	ètr	a sõ ayu (from: avuá)	BE	yes	
h.	mW-Flemish	siin	si hebben ghesiin	HAVE	no	
i.	Frisian	wêze	hja hawwe west	HAVE	no	
j.	Danish	vaere	de har vaeret	HAVE	no	
k.	Norwegian	være	hun har vært	HAVE	no	
l.	Icelandic	vera	hann hefa verit	HAVE	no	
m.	Swedish	vare	de har varit	HAVE	no	BE_{ptc}
n.	French	être	ils ont été	HAVE	no	
o.	English	be	they have been	HAVE	no	
p.	Roumanian	fi	ei au fost	HAVE	no	
q.	Portuguese	ser	eles têm sido	HAVE	no	
		(estar)	(têm estado)	HAVE	no	
r.	Spanish	ser	ellos han sido	HAVE?	no	

In (1a), we see that e.g. Italian /ess-/ is defective in its participle formation. This form is suppleted by a different root, namely by /sta-/. This correlates with the fact that *essere* selects *essere* as its perfect auxiliary. English (1-o) on the other hand, has a non-defective participle formation (*be* → *been*), correlating with the selection of HAVE .

The data in (1a-r) show that there is a strong observational correlation in Romance and Germanic between the defectivity of participle formation of BE and the auxiliary selection of BE. Apparently, languages can be classified in two groups, one with a defective participle formation of BE - this takes BE as its auxiliary. The other class of languages take HAVE as the auxiliary to BE and this class has a non-defective participle of BE. Let us formulate this in the following observational generalization.

[4]Butz 1981:145. Similar data in Soisson in the east of Côte d'Or (France), cf. Taveret 1971:72, Kayne 1993:23. We discuss the use of HAVE as suppletive verb to BE in section 5.

2 AUX-Generalization
The infinitival root of BE is defective in its participle formation in a language L iff L uses the verb BE as a perfect auxiliary for BE.

Since this correlation only holds for BE, some interaction must be present between the auxiliary BE and BE_{ptc}. We will indicate the suppletive participle with 'WS', from Dutch *geweest*. If we do not consider this suppletive root /WS/ as a case of BE, generalization (2) strongly suggests that there exists some ban on the double use of BE, as expressed in (3).

3 *BE^i +BE^k if:
a. BE^k is in the same local domain as BE_i **and**
b BE^k is derived from the infinitival or present tense root

This ban is especially striking in Norwegian. In this language, unaccusatives have a free choice of the auxiliary, without the slightest difference in meaning (Vikner & Sprouse 1988).

4a Jeg har kommet (Norwegian)
b Jeg er kommet
I have/am come

In case of the verb BE, however, Norwegian only allow for HAVE as an auxiliary, cf. (5).

5a Jeg har vært (Norwegian)
b *Jeg er vært
I have/am been

In other words, in case of BE use of BE as an auxiliary is blocked.[5]

An other curious case involves Catalan. We will discuss the Balearic variant where the process is clearest (1c). Older Balearic, and still the literary Balearic language, selected BE as an auxiliary with some ergative verbs. Balearic used the verb BE as an auxiliary to BE (*èsser*) as well. With this fact correlated the defective nature of the participle of *èsser*: Balearic used *estat* to supplete this form. It patterned in this respect with Provençal (1b). In more recent times, auxiliary selection became obsolete in Balearic. It started to use HAVE as a general perfect auxiliary. Simultanoously, it created a new participle form of *èsser*: *sét*. [6]

6	a.	Balearic Catalan	ésser	ells són estats	BE	yes
	b.	Modern Balearic	(es)sèr	ells han sèt	HAVE	no

---

[5]Similar data from Icelandic, cf. Vikner & Sprouse 1988

i	María hefur komið	iii	hann hefa verit	(Icelandic)
ii	María er komin	iv	*hann eru verit	
	Mary has/is come		*they have/are been*	

Curious is the possibility of a double BE in the perfect tense of impersonal passives (Sigurdsson, pers. comm.).
v dhat var verið at dansa
there was been to danse

[6]Cf. Moll 1968:135. In older Balearic Catalan (and still in written language), the form *sét* ('been') was not in use (Moll 1968:117). In modern Balearic, the use of *ésser* as an perfect auxiliary to verbs of movement, BE, *quedar* (stay') and *romandre* ('remain') is archaic or very literary (Picallo, pers. comm.). It has *han sét* or *han estat*. So Modern Balearic patterns with continental Catalan (*ells havien sigut, ells havien estats*).

A similar process seems to be going on on the continent, although the situation does not seem to be sharp yet. Along with the rise of new participle forms *sigut/set* the possibility of using HAVE as an auxiliary to *èsser* arises. This indicates that the shape of the participle and the choice of the auxiliary are diachronically related.

BE in the Semitic languages

The copular verb BE in the Semitic languages exhibits a curious behaviour in the present tense. In the present tense, BE is often replaced by pronoun. Such a pronoun is called a copular pronoun, since it behaves in various respects like a verb. Consider for instance Semitic (cf. Doron 1986:315).

7a	inta huwwa il-mudarris *you.Ms he the teacher* *'you are the teacher'*	(Arabic, Eid 1991:42)
b	ata hu ha-shoter *you he the-policeman* *'you are the policeman'*	(Hebrew, Berman & Grosu 1977:271)
c	?atah-hua mel^{e}kii, ?elohim. *thou he king-me, God.pl,* *"thou art my king, o God!"*	(Biblical Hebrew, *Book of Psalms 44,5*)

The use of a pronoun as the present tense of BE suggests that BE in Semitic carries a referential index. Curiously, BE is identical to a pronoun in the present tense only. In the past tense the verb BE behaves quite similar to an ordinary verb (Eid 1990, *passim*).

8	David hayá xaxam *David was clever*	(hayiti, hayita, hayá, haynino, hayitem, hayitem) *(I was, you.s were, he was, we were, you.pl were, they were)*

Apparently, the present tense and the past tense of BE do not have the same syntactic status. Suppose that the past tense is a tense that has a dependency on a PAST feature, say in I^0. As it is natural to assume that the present tense is rooted in discourse and not syntactically realized, we could assign the following dependencies to the present and the past tense respectively.

9a	present:	$CP[T_{op}$	$IP[$ BE^i		→ [+pron] form of the copular
b	past:	$CP[T_{op}$	$IP[$ PAST^i	BE^i	→ [+ana] form of the copular

The complementary distribution of this copular pronoun and the punctual past suggests that the punctual past operator carries such an index as well. If so, the complementary distribution would follow from the Binding Theory, if the index of the present tense carries the feature [+pron]. The verbal past forms, which depends on PAST, must then carry an anaphoric index. The impossibility to use a pronoun as a

copular verb in the past tense in the Semitic languages is evidence that the past tense paradigm of BE is not pronominal but verbal.[7]

10a BE carries a referential index
b $BE_{present}$ and PAST are [+pron]
c BE_{past} is [+ana]

Supporting evidence for the referential nature of BE on a par with PAST can be extracted from modern Hebrew. Hebrew has two negations *eyn* and *lo*, used in the present and past tense respectively.

11a eyn dani ohev bananot (Doron 1986:327)
NEG_1 Dani like bananas
Dani doesn't like bananas
b dani lo katav sh?orim (Samir Khalaily, pers. comm.)
Dani NEG_2 wrote lessons
c *eyn dani katav sh?orim
NEG_1 Dani wrote lessons
Dani didn't write lessons

We see that *eyn* cannot be used with the past tense (11c), but *lo* can (11b). Remarkably, the present tense *copula* blocks the use of *eyn* (12a). Use of *lo* is the only way of negation (12b).

12a *eyn dani hu more (Doron 1986:327)
NEG_1 dani hu more
b David (hu) lo more
David BE NEG_2 teacher
'David is not a teacher'

In other words, the "copular pronoun" *hu* behaves on a par with the PAST feature in selecting *lo* in opposition to ordinary present tense verbs (like *ohev* in (11a)). In our system (9-10) this could be related to the fact that both BE_{pres} and the PAST feature are pronominals. One way to capture this, is that *eyn* and *lo* are taken as the negative forms of BE. If so, they interact with BE via the binding theory, as well. Both the distribution and the position of the negation in (11) and (12) follow if we adopt the following assignments (13).

13a eyn = $BE_{pron, neg}$
b lo = $BE_{ana, neg}$

Whereas Doron (1983, 1986) and Rapoport (1987) tried to design a theory to reconcile the non-verbal behaviour of BE_{pres} with a supposed verbal character of the copular pronoun, our theory takes the pronominal nature of copular verbs as a starting point. Given our assumptions, the problem of the copular pronouns dissolves and a natural similarity arises between pronouns, $BE_{present}$ and punctual past feature: they are pronominal. In this view, the (anaphoric) past tense forms of BE are similar to

[7]Notice that these indexes are carried by *heads*, i.e. that the binding theory must be not only applicable to maximal projections, but also to heads. A binding theory of heads was proposed in Postma 1993b. The binding principles are identical to the Binding Theory of maximal projections (as formulated by Kayne 1991).

past tense forms of ordinary verbs. Morphologically, BE_{past} indeed behaves very much like a ordinary verb.[8]

The idea is now to generalize these findings from Semitic to the Western-European languages. If this can be done in a consistent way, we probably can attrribute the general suppletive character of the paradigm of BE in the European languages in a similar way to the Binding Theory. The suppletion in Semitic seems to be copied in the Western European languages. In these languages, the punctual past of BE is formed by a suppletive root, comparable to what happens in Semitic. Despite the strong correlation, we will concentrate in this study on the suppletive character of the participle, as it correlates with auxiliary selection in an interesting way. It provides us with a stronger argument that syntax is involved.

So, let us apply this way of reasoning on the participle formation of BE (14a-d).

14a		*We BE	BE_{ptc}	non-existent, Principle B violation
b	We have been	We HAVE	BE_{ptc}	(English, etc.)
c	We zijn geweest	We BE	WS_{ptc}	(Italian, Dutch, etc.)
d	*Wij hebben geweest	*We HAVE	WS_{ptc}	Principle A violation

If BE is pronominal, (14a) is unwell-formed because of Binding Principle B. Now, a language has two options to save this periphrastic construction: either it uses HAVE instead of BE or it replaces a pronominal participle by an anaphoric one. Languages that usually use HAVE can keep on doing so. Languages that normally select BE with unaccusatives must choose between using HAVE with the unaccusative verb BE (French, Frisian and Danish), or switch to an anaphoric participle (e.g. Italian, Dutch and German). Notice that this theory disallows to do both (14d), since in that case the anaphoric WS would not have an antecedent, as only forms that carry an index, like

---

[8]Cross-linguistically, the defectivity of BE seems to have an adjectival counterpart in the defectivity of *good* with respect to comparative formation, e.g. English *good-better-best*. Evidence that this defectivity is syntactic can be obtained from its interaction with the negation *no*. The negation *no* can be used as a test on the presence of a (pro)nominal index.

(i) *He no works
(ii) He has no work

Now, *no* cannot co-occur with adjectives but can co-occur with comparatives.

(iii) *John is no smart
(iv) John is no smarter than Peter

This sugegsts that the comparative morpheme /-ER/ contains a pronominal index. Now, the special status of GOOD shows up in the fact that it can be combined with *no* cf. (v).

(v) This is no good

This suggests that GOOD inherently carries a pronominal index just like -ER. If this is correct, it offers us a fundamental explanation why a suppletive form has to be used for comparative formation of *good*: to avoid a Principle B violation.

(vi)	better	vii	*gooder	
	$-ER_i$ .....BET_i		$-ER_i$ .....$GOOD_i$	(Principle B violation)
	[+pron] [+ana]		[+pron] [+pron]	

If this line of reasoning is correct, comparative formation could be the adjectival analogon to PAST formation of verbs. This is confirmed by modern Hebrew. *Eyn*, which is incompatible with PAST, is also incompatible with the comparatives. Instead, *lo* is the only negation possible (Samir Khalaily, pers. comm.).

(vii) *Eyn Dani yutir haxam mimini
(viii) Dani lo yutir haxam mimini
(Not) Dani (not) more smart than-me

This indicates that the proper generalization is that *eyn* is sensible to pronominal heads rather than just to tense or the comparative. If *eyn* is not a head, but a maximal projection, the incompatibility with comparatives dissolves.

(ix) Eyn yutir yafe mize
Nothing more beautiful than-this

This indicates that a binding theory of heads is involved.

BE_{pres}, BE_{inf} and PAST, are appropriate antecedents. This gives rise to the typical pattern of table 1.

This explanation presupposes that both the infinitive and present tense of BE are universally pronominal, whereas the participle formation is parametrized as pronominal (e.g. English) or anaphoric (e.g. Italian, Dutch). Moreover, it presupposes that HAVE is not a possible antecedent.

15 BE parameter
- BE must be locally free (and WS must be locally bound) (Pronominal Model)

If a language can not realize the option between the brackets, it has only BE and must use HAVE as an auxiliary to BE (e.g. English), since BE BEEN would give rise to a binding violation.

2. The alternation *zijn* - *wezen* in Dutch.

A basic assumption of our theory is that the correlation (1) does not only have just an etymological origin but has a synchronical, syntactic basis. Now, we will present direct evidence for this view, drawn from Dutch. In the infinitive, Dutch shows a peculiar alternation of two forms of BE, namely *zijn* and *wezen*, cf. (16a-b), with exactly the same meaning, although (16b) is substandard.

16a Je moet niet zo onvoorzichtig zijn
b (?)Je moet niet zo onvoorzichtig wezen
You should not so imprudent $BE_{1/2}$

In the other forms of the Dutch paradigm of BE, there are no such alternates. The two roots of Dutch BE, /zij-/ and /wez-/, normally supplete each other, except in the infinitive, where they alternate (cf. Den Besten & Edmondson 1983:186, 212 note 16).

As we can see from table (1), BE ('zijn') selects BE in Dutch, giving rise to a defective participle ('geweest'). Now, the crucial argument in favour of the syntactic status of (3) can be obtained via the Dutch Infinitivus-pro-Participio effect (IPP). The IPP effect consists of a replacement of the participle by the infinitive in verb raising contexts.

17. *Ik heb Jan huilen gehoord (DS) → *Ik heb Jan gehoord huilen → Ik heb Jan horen huilen (SS)
I have John cry.inf heard *I have John hear.inf cry.inf*

The IPP effect must be a syntactic phenomenon as it correlates with verb-raising.

Now, if (3) were not a truly syntactic condition, we would expect that if the IPP applies to the participle of BE (*geweest*), we would have either of the two forms *zijn* or *wezen*. If on the other hand (3) is syntactic, we expect restrictions on the replacement of the participle *geweest* by *zijn/wezen*. This is what we find, see (18b), which is the perfect of (18a):

18a De meisjes zijn wandelen
The girls are walk.inf
The girls are out for a walk

b *De meisjes zijn wandelen geweest (DS) → (V-rais.) De meisjes zijn geweest wandelen
The girls are walk.inf been' *The girls are BE_1/BE_2 walk.inf*

↓ (IPP)

De meisjes zijn wezen/*zijn wandelen (SS)
The girls are BE_1/BE_2 walk.inf

The syntactic appearance of *zijn* is excluded (Van Haeringen 1955), and since the IPP effect is syntactic, *zijn* must be excluded by syntax.[9] Consequently, what we find is a correlation between morphological participle formation (19a-b) and the *syntactic* exclusion of *zijn* in IPP contexts (20a-b).

19a	*Wij zijn in de stad ge-zijn-d	20a.	*Wij zijn vandaag zijn winkelen
b	Wij zijn in de stad ge-wees-t	b	Wij zijn vandaag wezen winkelen
	We are in the town been		*We are today be shop.inf*
	'We have been in town'		*'We have been shopping today'*

Now, if the phenomena of (19a-b) and (20a-b) are indeed parallel, this is a confirmation that the correlation between defectivity and auxiliary selection does not result from language history or etymology, but stems form syntactic restrictions on the different roots of BE.

3. On the nature of HAVE

If it is true that BE is [+pron], the question arises what HAVE is. On the one hand, both verbs seem to have many things in common that put them apart from ordinary verbs. Now, it has been argued that HAVE is a form that *contains* BE (e.g. Hoekstra 1990, Kayne 1993). If Hoekstra is correct, it follows that HAVE should carry a pronominal index, too. On the other hand, we would like to retain our result that BE seems to obey Principle B, but that no such restrictions are observed with HAVE, as can be seen from constellations like (21a-b), which are perfectly grammatical.

---

[9]The sentences with infinitival *wezen* have inchoative aspect. So, (i) can be replaced by (ii).
(i) Wij zijn patat wezen eten
(ii) We zijn patat gaan eten
We are fries BE/go eat
'We have gone out to eat French fries'
Similar data can be found in the Swiss-French dialect of Vermes (Butz 1981:143) and the French dialect of Bagnes (Bjerrome 1957). The inchoative aspect of *wezen* in opposition to *zijn* is especially clear in some infinitival imperatives.
(iii) weg wezen!
'go away!'
(iv) *weg zijn!
(v) *wees weg!
Also *hebben* can have inchoative aspect in the perfect tense.
(vi) Ik heb een cadeau van Marie gehad
I have a present from Mary had
'I got a present from Mary'
In some languages, the opposite happens: the perfect inchoative ('became') is used to supplete the punctual stative past of BE, e.g. Classical Syriac (Rompay 1991), Sanskrit (Gonda 1966).
This neutralization of stative and inchoative seems to be limited to perfect and past tenses, cross-linguistically.

21a I HAVE HAD
b I HAVE BEEN.

One way to capture the nature of HAVE is given by Hoekstra 1991, Kayne 1993. They claim that HAVE is BE into some functional projection, say X, has incorporated (22). Now, Kayne argues that BE is the universal perfect auxiliary. So all periprastic tenses contain BE at DS.

22a	BE_i	(X)	BE_i	have been	(supine constr.)
b	BE_i		WS_i [+ana]	ben geweest	(participle constr.; first version)

We would like to give a binding-theoretical interpretation of Hoekstra's and Kayne's proposals.[10] We could interpret this functional projection X as a kind of opacity factor or minimality barrier to local binding. Insertion of such opacity factor will save the construction from a Principle B violation. If some form of (22) is correct, it provides a syntactic reason why HAVE BEEN or HAVE HAD is correct but BE BEEN is cross-linguistically excluded: only the latter misses an opacity factor which can save it from a Principle B violation. If such an opacity factor is not present, the structure is ungarmmatical unless some anaphoric form of BE is used in the participle (22b). This are the defective particple constructions. So, this interpretation of Kayne's proposal gives prospects to a syntactic explanation of morphological defectivity.

A note should be made here. If we assume the assignment of binding features rules the phenomenon, the data of Table 1 only follow from the Binding Theory if we adopt a rule that projects features of the binding theory in a uniform way on a phonological matrix.

23 Naturalness Condition
If a morpheme X has the lexical assignment of some feature [+α], this morpheme X will always be specified for this feature.

Only if some form of (23) is valid, we can infer from opposite assignment of binding features to the necessatity of suppletive forms of BE. So, (23) is crucial in our explanation of the AUX generalization. If some form will turn out to be true, it provides us with a tool to involve morphology in a serious way into syntactic investigations. Notice that (23) does not disallow that several morphemes carry the feature [+α]. Hence (23) does not exclude pronominal sequences like *be, am, is, etc.* This is analogous to the fact that syntax allows for different morphemes to form argumental pronouns, like *I, you, he, etc.,* which share the property [+pron], as well. In the rest of the paper, we will briefly address the reason *why* it is the case that BE is pronominal. We will study the issue within the range of Romance.

We have just presented some evidence that BE interacts with BE by the binding theory. BE cannot co-occur with BE in the same domain (24a).

[10]This presupposes that the binding theory is also applicable to heads. Arguments for and consequences of such a Binding Theory of Heads is developped in Postma (*op cit.*).

24a *BE + BE
b *SE + SE
c *BE + SE

Moreover, it is a well-kown result that double SE constructions are ungrammatical (25), (Napoli, 1973, 1976 ; Castelfranchi, 1976).

25 *Si si lava
One washes oneself

So, let us adopt (24b). Now, if also (24c) were true, i.e. that BE + SE interact via the BT, we could identify BE with SE.

26 BE (or 'SER') is an inflected SE-particle

If so, BE is just like SE subject to the binding theory. Now, Kayne (1992) has argued that all clitic pronouns are pronominal, also the so-called reflexive clitics like SE. If we take this for granted[11], we must only find evidence for (24c), i.e. for the interaction of BE and SE, in order to make the identification BE=SE and the pronominal nature of BE would be derived.

4. The interaction of SE and BE

Consider now (27).

27 Maria si è lavata
Mary refl BE washed (Mary has washes herself)

In (27) the auxiliary is BE. As was argued by Rizzi (1986) and Kayne (1992), this is due to the passive geometry of clitic reflexive constructions. Curiously, in the dialects of the Veneto area, BE is replaced by HAVE in the 3rd person singular and plural. Kayne (1993:16) shows that "the choice of the auxiliary is keyed directly to the reflexive clitic itself": only if it is *se* rather than *me or te*, BE is replaced by HAVE in contexts corresponding to (27). For instance in the dialect of Conegliano, the second person plural reflexives can be formed either with the reflexive clitic *ve* (which is the 2nd person pronoun) or with *se*. Only when the clitic is *se*, i.e. when it does not formally agree with the subject, HAVE is inserted instead of BE. Similar effects obtain in Paduan according to Kayne/Benincà, and in Swiss French (Butz 1981:77). We will give an additional example from Milanese (Beretta 1980:149).[12] Now, Milanese utilizes a generalized reflexive SE clitic, with the exception of the first person singular.

---

[11] A discussion of Kayne's proposal can be found in Postma (*op. cit*, section 8)

[12] The spread of the third person reflexive over the whole paradigm is a quite common phenomenon (cf. e.g. for Piedmontese, Burzio 1986; for Surselvan, Stimm 1973). Historically, as Stimm argues, the 3rd person reflexive *se* in Surselvan first genaralizes over 1 and 2 of the plural (*me te se, se se se*, like in Older Surselvan); the subsequent step is a generalization over the whole paradigm (like in modern Surselvan). Postal (1969:222) proposes the following feaure assignment:
1= [+I, -II,-III]
2=[-I,+II,-III]
3=[-I,-II,+III]
1pl=[+I,+II,+III] or [+I,-II,+III] or [+I,+II,-III]
2pl=[-I,+II,+III] (or [-I,+II,-III])
(continued on next page)

28a	nun se l'emm mangiada	
	we REFL her have eaten	*('We have eaten it for ourselves)'*
b	tì te s'eet spazzettaa	
	you subj-Cl REFL have walked	*('You have walked')*
c	Me me l' son mangiada	
	I me it be eaten	*('I have eaten it for myself)'*

We observe in (28a) that the 1st person plural *nun* is used together with *se* which corresponds to a 3rd person reflexive. This *se* we will call generalized SE, since some ϕ-features are missing. In the presence of this *se*, the form *emm* 'we have' is used instead of the usual form *semm* 'we-are'.[13] Curiously, this switch from BE to HAVE does not occur in the first person singular (28c), which utilizes a reflexive with ϕ features..

Significantly, the dialects that exhibit this curious replacement all use the reflexive clitic *se* for various persons. If *se* is in ordinary agreement (like in Italian or French), no such replacement by HAVE can be observed. We will use the notation 'SE' for such a generalized *se* which seem to lack crucial person ϕ-features.

29 SE=generalized *se*

Now we can formulate the conditions of replacement of BE by HAVE in a more precise way: in the presence of generalized SE, BE must be replaced by HAVE. Apparently, generalized SE is incompatible with BE (30).

30 *SE + BE (if both are in the same local domain)

So, Kayne is correct in that the replacement of BE by HAVE is "keyed by the reflexive clitic", but it seems to be generalized SE, rather than ordinary *se*. Limitation to generalized SE (30) seems to be the proper generalization.

Similar effects can be observed in constructions with passive SE. Consider the following sentences (31) from Paduan, taken from Kayne (1993:17).

31a	El$_i$ se$_i$ ze vardà	
	He se BE.3sg looked-at	*('He has looked at himself)*
b	Se ga balà tuta la note	
	SE HAVE danced all the night	*('One has danced all night')*
c	*Se ze balà tuta la note	
	SE BE danced all the night	

In (31a) we see that the reflexive is compatible with BE. As this *se* is in agreement with the subject, it can carry ϕ features and should be glossed as *se*. Passive SE however, does

---

(continued from previous page)
3pl=[-I,-II,+III]
On the basis one this assignment we will take [+III] as {3sg,1pl, 2pl, 3pl}. In terms of the features of Postal 1969, *se* first becomes sensitive only to the feature [± III] and later it looses all feature sensitivity. This gradual development seems to be wide-spread (Stimm, *op. cit.*). Moreover, it correlates with the restriction of this generalized SE as an inalienable reflexive (Stimm, *op. cit.*). For some reflection on this correlation, see section 8 and 9.

13 The paradigm of BE in Milanese is: inf: *ve-ss*, present: *sont, seet, è, semm, sii, hinn*; past: *seri, serit, era, serom, serov, eren*; Of HAVE: inf. *ave-gh*: present *gh'hoo, gh'heet, gh'ha, gh'emm, gh'hii, gh'ann*). So both HAVE and BE seem to contain a clitic, which are homophonous to dative/locative and reflexive clitic, respectively. This clitic appears post-verbally in case of the infinitive. Beretta further reports the existence of the infinitival form *ve-gh*, which form he identifies as a form of HAVE. It seem to me that this form is a kind of intermediate form between HAVE and BE. Kayne (1993) reports a form *g'era* in Paduan, which he identifies as the imperfect of BE. As to the dative clitic it could also be a form of HAVE. The dative clitic seems only present in some auxiliary uses of the verb *avè*.

not carry ϕ features and should be glossed as SE. We see that only passive SE triggers replacement of BE by HAVE.

Evidence that the *pronominal form* of BE is decisive can be obtained from the fact that the ban of SE + BE is only active in the present tense. Kayne observes that the replacement of BE by HAVE is sensitive to tense, but it is unclear to him why. Consider (32a-b).

32a ??Se se ze visti (Kayne 1993:18)
SE se BE$_{3.sg.pres}$ seen
b Se se gera visti
SE se BE$_{3sg.imp}$ seen
'One has seen oneself'

In (32) we have a construction with a passive SE together with a reflexive clitic *se*. We see that the grammaticality of such double *se*-constructions improves considerably if the finite verb BE occurs in the past tense.[14] Recall further that only the present tense is pronominal. This suggests that we can identify the present tense root of BE as constituting the pronoun SE, so that we can collaps (24a-c) into (33).

33 *SE + SE if both are in the same domain

This means that the pronoun that constitutes BE is in fact SE. If this is correct, it implies that BE is in fact an inflected SE particle.[15]

Supporting evidence is found in the work of Luria (1930:146) where he reports that in the Judeo-Spanish dialect of Monastir (Macedonia), the reflexive particle is inflected for number, when used enclitically. Interestingly, the plural inflection is not /s/, the (pro)nominal plural marker, but /n/ the verbal plural marker.

34 Siénten-sen ustedes
Sit-down-REFL-pl you-hon

Similar phenomena in e.g. Aragonese ('ellos sen son tornaus', Alvar 1953:293). This is evidence that the suggestion of Kayne (1993:16) is correct that SE can move to AGR$_S$. If so, SE can acquire verbal inflection.

Notice further that (26) explains why the verb BE blocks the accusative assignment by AGR$_O$. Precisely the unaccusativity of BE has become problematic in any theory that adopts the idea of Chomsky (1988) and others that Accusative Case is not assigned by the verbs themselves but rather by a functional projection that heads the VP, called AGR$_O$. It is conceivable that ergative verbs have some property of de-activating their AGR$_O$. Whatever property this might be (e.g. aspect), it would not work in case of BE, if BE is a kind of default verb, inserted for tense-support[16] or selectional

---

[14]Double *se*-constructions are not really grammatical, cross-linguistically. For an explanation see Postma *op.cit.* Perhaps a question mark should be added, as Kayne reports that (6.6b) is *almost* perfect. What is relevant here is the relative improvement if one switches from the present tense to the past tense.

[15]BE in modern Greek, *eimai*, has the shape of a (rootless?) mediopassive. Generally spoken, the medio-passive is used to realize reflexive, reciprocal and passive readings and corresponds to Romance SE constructions. *Eimai* does not have a past perfect tense. It supplete this form with the past perfect forms of other verbs (e.g. *huparxo* ('exist') or *stekomai* ('stand'). *Eimai* does not have periphrastic tenses (data from Kazazis 1968:72)).

[16]Bach 1967, Fassi-Fehri 1982:74, Rothstein 1983:73, Williams 1984: 136f, Van Gestel 1986, Rapoport 1987:155ff, Moro 1990, Ouhalla 1990:19.

reasons[17]. If this were the case, the absorption mechanism of Accusative case in BE contexts remains a mystery. However, if BE is an inflected SE particle, the accusative absorption can be explained on a par of the absorption of accusative case in passive SE constructions. As was shown by Kayne 1992 and eleborated in Postma 1992, SE always identifies an empty category in the specifier of the embedded VP. If we generalize this to any embedded predicate, accusative case is blocked in SE contexts since licensing relations are unique (Hoekstra & Roberts 1989).

5. On the nature of the roots /STA/ and /WS/.

We saw from table (1g) that some languages use HAVE to form a suppletive participle to BE. We give an other example from the French dialect spoken in Le Morvan, taken from Taverdet (1971). Consider (35).

35a	i sö^{z} ö mèlèd	
	I am had ill	*(I have been ill)*
b	y' é^{z} ö dá su	
	I have had of money	*('I have had money')*

By comparing (35a and b), one can see that in Morvanese the difference between HAVE BEEN and HAVE HAD is not made in the participle like in English, but in the auxiliary. How can such a thing happen?

Curiously, Taverdet also reports "the reverse", i.e. the replacement of the participle of HAD by a participle of BE, which can be heard in Vitteaux (in the Auxois, France). Consider (36).

36a	I sö été mèlèd	
	I am been ill	*(I have been ill)*
b	y' é été dé su	
	I have been of money	*('I have had money')*

We see in (36b) that the participle *été* (been') is used instead of a form from *avuà* 'have'. This is especially remarkable, as defective participle formation of HAVE is not a common phenomenon, cross-linguistically. Perhaps we should try to re-interpret the data. Let us reconsider the data from Morvanois, Italian and Dutch (37) again. These data are fairly parallel in exhibiting a suppletive participle formation to BE.

37a	I sö^{z} ö (mèlèd)	(Morvanois)
b	Io sono stato (malato)	(Italian)
c	Ik ben (ziek) geweest	(Dutch)

Only the first language shows a form of HAVE in the participle. Italian shows a form of STARE ('stand') whereas Dutch shows a quite mysterious root WS. Are these languages really so different? It seems to me that we could unify these languages if we take

[17]Heggie 1988:121. For a discussion cf. Déchaine 1993:392.

STARE as having the meaning of "to have oneself somewhere", i.e. being a reflexive possessive, or: as being composed out HAVE + SE. Semantically this is quite plausible. Syntactically, this is also plausible as *stare* takes BE as an auxiliary, just like reflexives do (38b).[18]

38a Io sto nella piazza
I SE-have on-the square (or: I have myself on the square)
'I stand on the square'

b Io sono stato nella piazza
I be stood on the square

Evidence for the syntactic representation of STARE as being composed out of HAVE + a reflexive can be obtained from Portuguese. In Portuguese, the verb ESTAR (stage-level 'BE', henceforth BE_2) has morphological similarities to the verb TER ('have'). In several forms of the paradigm, ESTAR only differs from TER in having the prefix /ES/. For instance, although the past perfect tense of both *ter* and *estar* have a fairly irregular paradigm, the forms of the past-perfect are all equal except for the prefix ES.

39a *ter* 'have', perf.:*tive, tiveste, teve, tivemos, tivestes, tiveram*
b *estar* 'be', perf. :*estive, estiveste, esteve, estivemos, estivestes, estiveram*

Now, in Brazilian Portuguese the forms of *estar* (39b) are virtually always pronounced without realizing the /ES/ morpheme, e.g. *tive* instead of *estive,* 'I was'. This is done systematically over the whole paradigm, no form or tense excluded.[19] As a consequence, all perfect forms of HAVE and BE become homophonous, e.g. 1st person perfect /tive/, is ambiguous between 'I was' and 'I had'). Parallel to this, BP normally drops the reflexive morpheme SE in inalienable reflexive constructions, (cf. 40).[20]

40a Ele vai-se deitar (EP)
b Ele vai deitar (spoken Brazilian)
He goes SE lay down
'He goes to bed'

The common sensibility to the 'SE drop process' of inalienable reflexives and *es-tar* in BP is evidence that one and the same SE-morpheme is involved. This makes it probable that ESTAR contains the reflexive morpheme SE. So, we may adopt the following hypothesis (41).

---

[18]If we apply the test of Keyser & Roeper 1992, BE must contain an "abstract clitic", in view of the impossibility of for instance *re-be. If Den Dikken (1992) is right and *give* contains BE, the impossibility of *re-give follows by the same token.

[19]The process is not phonological, as it happens only with *estar* and the clitic reflexive (so, e.g. estudar → *tudar ('to study')).

[20]In standard spoken Brazilian, SE-drop is only possible in inchoative permansives, like *sentar-se* ('sit down'), *levantar-se* ('stand up'). It also happens in passive SE constructions. Drop is impossible in for instance *envergonhar-se* ('to be ashamed').

41a BE_1 = SE (SER)
b BE_2 = SE + Loc (ESTAR)

Now, *ètr* 'be' of the dialect of Vitteaux derives from Latin *stare*. This means that for this dialect that do not lexicalize the reflexive part in *ètr*, these forms will be ambiguous between a bare Loc ($HAVE_{loc}$) and a Loc dressed up with an (empty) SE morpheme (BE_2). In other words, in the dialect of Vitteaux a participle form like *été* is ambiguous between the meaning *ø-été*, with an empty reflexive (i.e. BE) and bare *été* (i.e. HAVE), without reflexive, just like in the perfect tense forms *(ø)-tive* in BP.[21] In the dialect of Vitteaux, however, the silent reflexive morpheme can be traced via the auxiliary selection! As reflexive constructions take BE as an auxiliary, and non-reflexives normally take HAVE, the different semantic value *ø-été* ('been') and *été* ('had') will show up in the choice of the auxiliary. This is precise what we see in the dialect of Vitteaux, now represented as (42). The difference between the perfect of HAVE and BE shows up in the auxiliary, rather than in the participle (always *(ø)-été*).

42a I sö ø-été mèlèd
I am STA ill *(I have been ill)*
b y'é été dé su
I have had of money *('I have had money')*

Represented in this way, this dialect fully parallels Italian. If this line of reasoning is correct, it can perhaps be carried over to the Morvanese construction (36a), containing a participle of *avuà* (HAVE), instead of STARE, and to Dutch (37c). The only difference with the dialect of Vitteaux and Italian would then be that Morvanese and Dutch have an other lexicalization of the abstract Locative, /VA/ or /WE/ respectively, instead of /TA/ in Vitteaux/Italian.[22,23]

---

[21]The forms in Vitteaux and Brazilian Portuguese are fully parallel, apart from the fact that Vitteaux has auxilary selection dependent on the presence of a reflexive, if we interpret the curious Portuguese /v/ mopheme in the perfect tense of *ter* and *estar* as an incorporated *haver*.

(i) Eu -ve (ø)-ti- doente *I have been ill*
Eu -ve ti- dinheiro *I have had money*
I HAVE (SE)-HAD...

(This /ve/ morpheme is in complementary distribution with an other misterious /n/ morpheme (Port. *tenho, tens etc.*). Perhaps this /n/ can be identified as an incorporated imperfective/partitive morpheme). The perfect morpheme /V/ also shows up in the synthetic perfect of limited class of verbs (*saber, trazer* etc.). If this is the correct interpretation, all 'regular' verbs take an incorporated BE in the synthetic perfect tense. Only *ter, estar, saber, trazer etc.* take an incorporated HAVE in the synthetic perfect. This means that auxiliary selection ís present in Spanish and Portuguese, but shows up in the synthetic forms only. In the optimal case, the obligatory selection of /v/ in the perfect of this special set of verbs should be explained along the lines of ordinary auxiliary selection.

Also in Latin, morphologized auxiliary selection seems to exist and is dependent on the verbal class. In the 1st, 2nd and 4th conjugation the auxiliary seems to be an incorporated HAVE (ii). In the 3rd conjugations and the verbs of the *capio*-group, the auxiliary seems an incorporated BE (iii).

(ii) vocaverunt (1st conj); deleverunt (2nd conj.); audiverunt (4rd conj.)
(iii) vic-erunt (3rd conj.); cepierunt (*capio*-group).

In Old-Latin, a person dependent aux-selection could be observed in the 1st and 2nd conjugation: the 2nd person sg and plural and the 3rd person plural cound realize BE instead of HAVE (so-called 'syncopated perfect', Ernout 1945:329-333). Moreover, BE in Latin (*esse*) took BE as a perfect auxiliary. Hence, a suppletive root is to be expected. This seems to be confirmed (fu-erunt). For a similar analysis of derived tenses in Sanskrit, Greek, Latin and Gothic, see Bopp (1816:32,52,59,151-157).

[22]The similarity of Franco-Provencale *ö/ayu* 'had' and Dutch *geweest* also shows up in the inchoative BE constructions of the type discussed in section 2.

(i) i s ayi tçuer ã l e˜due (Swiss-French dialect of Vermes, Butz 1981:143)
I am had search in the Andoie
(ii) Ik ben wezen zoeken in de Andoie (Dutch)

(continued on next page)

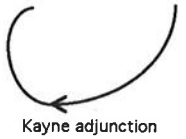
43 Ik ben ziek geweest
I am ill SE-WE lit.: I have had myself ill"
'I have been ill'

Why is this additional /TA/ or /WE/[24] morpheme needed in BE + BE constructions like 43? Let us assume that the universal perfect auxiliary is BE (Kayne '93); so also of BE itself. Now, as we saw before, the construction would be ungrammatical because of a double use of SE (44a). In other words, something must happen to save the construction. We discussed one way before: insertion of an opacity factor, which gave rise to the supine constructions HAVE BEEN (44b).

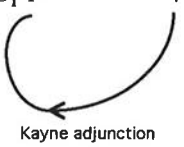
44a * ...SE_i..... [..SE_i

b ...SE_i....X..... [..SE_i (e.g. *han sido*)

c ..SE_i..... [..SE_i TA^0 (SE=[+pron, +ana], e.g.*sono stato*)



d BD_{ana} BD_{pron}
$IP[$ ..NP_i.....$IP[PRO_i$ I^0 V^0 (Kayne 1991)



An other way to save (44a) is by turning BE into an a pronominal anaphor. This can be done by Kayne-adjoining some embedded predicate, say /TA/, to the intermediate projection SE', in full anology to what happens in infinitival clauses (Kayne 1991). If

---

(continued from previous page)
I am WS search in the Andoie
'I have gone out to look in the Andoie'

[23]An interesting case is the dialect of Bagnes (France), cf. Bjerrome (1957:91-99). BE (*itre*) selects BE so that the participle must be made by suppletion. Curiously, Bagnois has two suppletive forms *zu* (from *a*^{i} 'have': *yo sé zu*) and *étó* (from *étá* 'stay': *yo sé étó*). The choice between these two suppletive forms seem to be semantic, but is not entirely clear to me. Combined with an noun phrase, the relevant dimension (*zu/étó*) is stage-level/individual level. Combined with a locative phrase, the relevant dimension is resultative/durative.

(i) yè yo sé étó boeu Tsablo
yesterday I am stayed down Châble *'Yesterday I have been (or: gone) to Châble'*

(ii) kã no sen zu pyi luen
when we are had more far *'when we got further',...*

Combined with a participle, the relevant dimension is adjectival/verbal passive. In the verbal passive, however, the usual auxiliary of *étá* is HAVE.

(iii) yo sé zu kõntrai de fire sen
I am had forced to do that *'I was forced to do that'*

(iv) yè, y'é étó awulyà d'ona wipa
yesterday I have stayed stinged by a wasp *'yesterday I was stinged by a wasp'*

The use of STAY to make a passive ressembles the situation in Scandinavian.

[24]A diachronic de-composition of *wezen* in WE+/ZIJ/ was already proposed by Bopp 1816:140. Bopp writes: "Wenn in Gothischen diese Partikel (i.e. *vi* , GJP) mit der Wurzel 'As' (i.e. 'be') verbunden wird, so wird entweder deren Bedeutung gar nicht geändert oder verstärkt – Im part. praes. wird *vi* der Wurzel vorgesetzt, ohne die Bedeutung zu modifizieren – vi-sands, vi-sandei, vi-sand, der Seieinde, die Seiende, das Seiende".

so, SE is governed (by /TA/) from within its own maximal projection.[25] Under these circumstances the Binding Domain of SE *qua pronominal* is distinct from the Binding Domain of SE *qua anaphor.* This is precisely the context where a pronominal anaphor is licit. In this way, BE_2 (41b) can be used as a suppletive participle to BE_1 under Kayne-adjunction of the embedded predicate (/TA/). Such a Kayne-adjunction gives rise to really merged forms as *stato* in Italian, and *geweest* in Dutch, in which the SE particle in *stato* cannot be considered as separated from the locative. This type of constructions is what we called the defective participle constructions.

The similarity of BE to clitic pronouns is now complete. Recall that all clitic pronouns are pronominal (Kayne 1992). Anaphoric use of pronouns is only possible if the structure licenses the occurrence of pronominal anaphors. In the same way, we traced two forms of the copular: one that is purely pronominal. This is what we called BE_1. Furthermore we traced a pronominal anaphoric use of the copular, it is licit if some (dummy) locative predicate Kayne-adjoins to it. This is what we called /WS/.[26,27]

---

[25]Notice that we apply Kayne's binding theory to (tense-linked) heads. The Kayne-adjunction process targets the intermediate projection (Kayne 1991). So, the Kayne-adjunction process can provide an internal governor for a head, as well as for a specifier. (cf. Postma *op. cit.*).

[26]It is not immediately clear why permansive, like *stand, sit, lie, (remain)* are so appropriate to function as a suppleted form for BE. If permansives contain a locative, why locatives are especially appropriate for the Kayne adjunction process? Curiously, Romance lost all permansives (apart from *stare* in Italian). Whenever forms of 'sit' were retained, they got the reading of equative BE, as in the subjunctivic forms of BE in Spanish and Portuguese. (e.g. *seja, sejas etc.* cf. Huber 1986:§200.1). In Dutch, on the other hand, permansives were retained. Interestingly, permansives in Dutch have a special status: they allow for a periphrastic present. The same is true for Icelandic (Einarsson 1945). However, the permansive *staan* is different form *zitten* and *liggen* in that this periphrastic present is absent.

Hij zit (present)	Hij is gezeten (present)	Hij heeft gezeten (perfect)
Hij ligt	Hij is gelegen	Hij heeft gelegen
Hij staat	*Hij is gestaan	Hij heeft gestaan

Among the permansives, *remain* occupies a special position. It behaves as to auxiliary selection fully on a par with BE. Apart from this, *remain* sometimes 'suppletes' the passive auxiliary function of BE (e.g. Scandinavian, the Swiss dialect of Bagnard, Bjerrome 1957:91-96, middle Dutch, Kern 1912:300). In Portuguese, *ficar* 'remain' often acquires the meaning of 'become'. The other permansives in Dutch can easily switch to a copular use (Hoekstra & Mulder 1991).

[27]It remains an unexplained fact why (i-a) is not fully well-formed.

i-a	?....om daar geweest te wezen	(no verb raising)
	...in order there been to be	
b	**....om daar te wezen geweest	(with verb raising)
	..in order there to be been	

The construction (i-a) is quite odd, but I hesitate to call it fully ungrammatical. Obviously, raising makes the construction totally ungrammatical (i-b). It is not clear to me whether the block on double /STARE/ constructions within the "temps sobre-composauts" in Occitan is due to the same fact (Wheeler 1990:264).

(ii)	el es agut estat	
(iii)	el es estat agut	
(iv)	*el es estat estat	
	he is been been	*'he had been'*

The ungrammaticality of (iv) is striking as this would be the form one would logically expect as an anterior past of *el es estat* 'he was'. One of the STARE participles has to be replaced by a HAVE participle (*agut*). A similar block in Portuguese:

(v)	Ela está sendo intelligente	
(vi)	*Ela está estando grávida	

There is no strategy to rescue (vi) in Portuguese. This might be an indication that the TA morpheme in the first ESTA functions as an opacity factor between the two instances of SE.

(vii)	SE_i ... TA .... SE_i	(configuration of (v)
	[+pron] [+pron]	
(viii)	*SE_i ... TA .... SE_i TA	(configuration of (vi)
	[+pron]	
	[+pron]	
	[+ana]	

This opacity factor, which saves (vii) from a principle B violation, renders (viii) in a principle A violation, since the second SE is not locally bound. This is necessary since the second SE is turned into a pronominal anaphor through Kayne-adjunction of the second TA. *Qua anaphor* this SE is not locally bound, because of the opacity of the intervening TA.

Denis Denison (pers. comm.) pointed out to me that substandard English also seems to know a supercomposed tense.

(continued on next page)

A sceptic reader is perhaps waiting for some direct syntactic evidence for the Kayne-adjunction process in *wezen*. One could think of some factor that blocks the adjunction process. Such a blokkage can indeed be found in Dutch. The Kayne-adjunction process can easily be checked in Dutch, since this language has 1. a suppletive participle WEZEN and 2. the phenomenon of verb raising. As far as it is true that verb raising establishes a merging of the embedded verb with a matrix verb, we expect that the locative incorporation (probably /WE/) into SE will block verb raising of a lower predicate into *wezen*. This is represented in (45).

45 V^0] VE] SE]

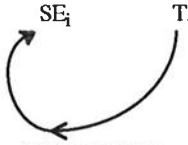
If we look at these constructions, this expectation is fully confirmed by the Dutch data (46a-b).

46a	Ik beloof je volgend jaar gepromoveerd te zijn/wezen	(no raising of ptc)
	I promise you to next year promoted to BE_1/BE_2	
b	Ik beloof je volgend jaar [ec_i] te zijn/**wezen gepromoveerd$_i$	(raising of ptc)
	I promise you to next year to BE_1/BE_2 *promoted*	

The data in (46b) shows that *wezen* is incompatible with raising of the participle.[28] The judgement is extremely sharp.

In sum, we found that the BE shares with pronouns the property of observing Principle B of the Binding Theory. As a result, periphrastic tenses of BE become problematic, as BE is the universal perfect auxiliary. For that reason, the simple structure (44a) is ruled out. There are two strategies to save this construction.

47a	*SE$_i$	....	SE$_i$		
b	SE$_i$	X..	SE$_i$		(supine constructions)
c	SE$_i$	...	SE$_i$	TA	(participle constructions, second version)



One option to save it is to insert an opacity factor between the two occurrences of the pronominal SE (44b).[29] For reasons discussed in Kayne (1993), this opacity factor has

---

(continued from previous page)
(ix) If I'd've known that, I would have ... =
(x) If I had have known that, I would ...
(xi) *If I had had known that, I would ...
We observe a replacement of *had* by *have*, which could be analogous to the Dutch IPP effect (cf.Denison, forthcoming).

[28] I.e. in *optional* verb-raising contexts (V-to-V). *Obligatory* verb raising (for reasons of tense-linking) realize V-to-I . These contexts do not exclude the occurrence of *wezen* (cf. 20b))

[29] An other way to think of (47b) is that the incorporation of /X/ into SE disrupts the strict C-command relation between both instances of SE. If no C-command relation is present, violation of Principle B is circumvented. There is some evidence that this strateggy is followed in Dutch. In Dutch, the anaphoric form of BE *geweest*, although excluded under the present tense of *hebben* (Principle A violation), can (substandardly) be realized under the past tense.
(i) Jan is/*heeft moe geweest
(continued on next page)

to incorporate into SE/BE giving rise to HAVE. This is the situation we have in English 'have been'. The other way to save (44a) is to turn the second occurrence of BE from a pure pronominal into a pronominal anaphor. This can be done by Kayne-adjoining TA to the intermediate projection of SE (44c). This gives rise to real participle forms like Italian *sono stato* or Dutch *zijn geweest*.[30, 31]

6. On the naturalness of linguistic signs

On could wonder what excludes the existence of a language L in which (48) is well-formed.

48 Wij zijn gezijnd
[+pron] [+ana]

Such a language could be easily designed in a Lexicalist Framework[32], namely in such a way that the present tense form *zijn* is specified in the lexicon as [+pron] whereas a fictive participle *gezijnd* is specified as [+ana]. The Lexicalist Hypothesis would not

---

(continued from previous page)
John is/has tired been
(ii) Als ik harder had gewerkt, was/(?)had ik nu beroemd geweest
If I harder had worked, was/had I now famous been
This could be explained if the anaphoric form *geweest* is bound in (ii) by the PAST feature rather than by *had*. If so, the binding incapability of *hebben* should not be attributed to an opacity factor, but rather by a lack of C-command by the index within *hebben*. So, *geweest* can not be bound by *heeft* because of lack of C-commandbut in can be bound in the configuration [...PAST....had ...geweest..] by PAST. Further support of the "C-command disruption" strategy exist could be obtained from Servo-Croatic. Servo-Croatic violates the AUX generalization with the paradigm byti - byl jesem (BE- BEEN am). However, the *sem* index is always embedded in Slavonic, either under a morpheme /je/ or under the Wackernagel position (P2). If so, the violation of the AUX generalization can be attributed to the clitic nature of the auxiliary in Servo-Croatic. Also in Old-Italian, constructions of the type BE BEEN are reported (Nigel Vincent, pers. comm.).
(iii) e son maggior essute
and are larger been
'and they were larger...' (Brunetto Latini, *Il Tesoretto*: 2186, mid 13th cent.)
Perhaps this is related BE's interaction with the Wackernagel position in the same way ("cliticization under P2"). Notice that Old-Italian observed, just like Servo-Croatic, the Tobler-Mussafia Law. I leave it for further research.

[30]We studied the defective character of BE_1 and its suppletion by BE_2 from a purely formal point of view. It is not entirely clear whether the *structure* of BE_2 should also be the basis of the different semantics of BE_2 and why this semantics is neutralized in Dutch *geweest* and Italian *stato*. We found justification to leave semantic considerations outside the picture in the fact that the semantics of *stand* and *sit* can easily be dropped both diachronically (e.g. Port. $BE_{subjuctive}$ < sedere 'sit') and synchronically (copular use of *zitten* and *staan*, cf. Hoekstra & Mulder (1990:12-14)).
For a more semantic approach to BE_1 and BE_2, see Kratzer 1989, Diesing (1988, 1990).

[31]In this study, we abstracted away from the internal structure of participles and infinitives. For a really consistent theory, we can not maintain this, in view of Scandinavian. Reasoning from auxiliary section (HAVE) we must conclude that the root *være* is pronominal. Reasoning from its occurrence under PAST (*var*), we must conclude that *var* is anaphoric. This implies that we must assume that the nominal forms (inf. and ptc) have a structure like (i).
(i) $[\ D_i^0\ \ldots\ldots WR_i\ ]$
[+pron]
So, the root WR is embedded under a pronominal index. If so, WR must be a pronominal anaphor and we can identify Scandinavian *være* with WS, in concordance with their etymology. This suggests that the lexicalisations of syntactic features might be constant in time (apart from regular phonological changes, like rhotacism, etc.).
(ii) Etymological Hypothesis
Lexicalizations of syntactic features are diachronically constant
If a weak interpreatation of (ii) would be correct, we can describe linguistic changes that observe (ii) as "structure preserving" in a cross-linguistic, diachronical sense. These structure preserving linguistic changes would be a possible research object of a theory of Generative Etymology.

[32]Chomsky 1965:173, 1970 *passim*. Traces of this nominalist view on denotation can also be found in Anderson 1982:571. Anderson writes "..the facts of lexically governed suppletion, which are comparatively uninteresting from the point of view of linguistic structure...".

exclude such a language, as syntactic processes are insensitive to the internal structure of words, i.e. syntax cannot "see" what root has been used within the participle. So, the question arises, why such languages are not found within the set of languages of Western-Europe. To put it differently: why don't we find a language in which the syntactic features [+pron] and [+ana] are conveyed by two morphemes that have an identical morpho-phonemic shape (/zij-/ in the example)? So, why does (49) seem to hold? Or: why does defectivity exist?

49 * I /ZIJ-/ [- ana]
I /ZIJ-/ [+ana]

Apparently, our conclusion on the necessary defectivity of BE only holds if some principle is valid that blocks the identical lexicalization of the pronominal and anaphoric features, even when these morphemes are 'hidden' within derived forms like participles.

50 Naturalness Condition
If a morpheme X has the lexical assignment of some feature [+α], this morpheme X will always be specified as [+α]

Now, if this generalisation (50) is correct[33], it means that the relation between syntactic features and the way of their lexicalization is not arbitrary *within one language*. At first sight, this goes against the generally accepted Saussurian ideas that the relation between *signifiant* en *signifié* is arbitrary, cross-linguistically and language-internally. However, as Benveniste (1939) has argued, the arbitrariness between *sinifiant* en *signifié* only holds within the domain that has a relation with meaning *(signification)*. In generativist terms: only in the domain of lexical categories does the arbitrariness between *signifiant* and *signifié* obtain, not in the domain of functional categories. If this is correct, the Saussurian idea has to be confined to lexical categories: "Ce que Saussure démontre reste vrai, mais de la *signification*, non du signe" (op. cit.:53). Benveniste concludes:

«Il apparaît donc que la part de contingence inhérente à la langue affecte la dénomination en tant que symbole phonique de la réalité et dans son rapport avec elle. Mais le signe, élément primordial du système linguistique, enferme un signifiant et un signifié dont la liaison doit être reconnue comme *nécessaire*, ces deux composantes étant consubstantielles l'une à l'autre. *Le caractère absolu du signe linguistique* ainsi entendu commande à son tour la *nécessité* dialectique des valeurs en constante opposition, et forme le principe structurale de la langue. (...) En restaurant la véritable nature du signe dans le conditionnement interne du système, on affirmit, par-delà Saussure, la rigueur de la pensée saussurienne. » (op.cit: 55).[34]

---

[33] So we follow Benveniste (1956/1966:75-87), rather than Karl Abel's theory on the "The Antithetical Meanings of Primal Words" (1884), adopted by Freud 1910/1956:S.E. XI:156. For some discussion cf. Kitcher 1992:134ff, Bowie 1987:107-8; Forrester 1980:97-98,131-165, and Lepschy 1982. See also section 11.

[34] "This shows that the contingency inherently present in language influences the naming as far as it is sound symbol of an element of reality and in its relation to reality. But the sign, primordial element of the system of language encompasses a signifiant and a signifié whose relation should be taken as a necessary one, as these two components are consubstantial with each other. In this way, the rigid character of the linguistic sign forces the dialectical necessity of the values to be in constant opposition, and constitutes the structural principle of language. (...) By situating the true nature of signs in the internal organization of the system, one confirms, despite de Saussure, the rigor of the Saussurian thought"

We feel that the Naturalness Condition captures in a natural way the difference between the "substantial" semantics of lexical categories and the "functional" semantics of functional categories. As only the latter can be fully described in terms of syntactic features, the Naturalness Condition only applies to functional morphemes not to lexemes. We may conclude that the Naturalness Condition is not only necessary to give a full account of the empirical data concerning the defectivity of BE, but also concurs with the more philosophical considerations of Benveniste on the relation between *signifiant* and *signifié*.[35]

A final warning is necessary. It is not entirely clear to what extent the Naturalness Condition is an absolute principle of syntax or simply a tendency to map syntactic features onto phonology in a consistent way.[36] Whatever might be the case, the Naturalness Condition would retain as an important drive behind phonological change, or to the extent that phonology is an autonomous module, it would be a drive to syntactical change originating from phonology. Or, to the extent that Phonology and Syntax are independent modules of Grammar, the Naturalness Condition can be seen as an important interactional force *between* these two modules.

7. Discussion

One important point is not addressed yet: if BE behaves like a pronoun, how do we *interpret* such a finding? Two interpretations come to mind. We could think of taking the restrictions imposed by principle B as purely formal. If so, some umbrella theory on the well-formedness of syntactic linking would exist. One of the realizations of this umbrella theory would be Chomsky's binding theory.[37]

The other interpretation is to take the restrictions found on the distribution of BE as caused by BE's pronoun nature in the *referential sense*. For instance, it could be that the index carried by BE and HAVE realizes a kind of eventive argument (in the sense of Davidson 1967, Higginbotham 1985), or some other type of argument, assigned by the verb. In regular verb forms, this (eventive) argument is not vociferous and that's the reason why the Naturalness Condition puts no constraint on the binding nature of this eventive argument (anaphoric or pronominal). Such verbal roots can be used either as a present tense (pronominal use) or be embedded under PAST (anaphoric

---

[35]It is difficult to see how we could derive the AUX-generalization, if we adopt a "feature checking process" (cf. Chomsky 1992) instead of a "picking up process" (e.g. Pollock 1989, Platzack & Holmberg 1989). On first view, these two approaches seems to be notational variants of each other. However, in combination with the Naturalness Condition (50), the feature picking-up approach renders the most restrictive theory and can narrow down the possible grammars to those that observe the AUX generalization. If the AUX generalization turns out not to be an *absolute* rule of UG, it seems to me more natural to relax the Naturalness Condition to a Naturalness Maxime, instead of weakening the theory by adopting a (pseudo-lexicalist) feature checking process.

[36]Various exceptions to the AUX-generalization are reported from dialects, e.g. modern West-Flemish (Haegeman, pers. comm.), Alemannic (Brandner, pers. comm.), and substandard Frisian (Popkema 1984; Johnston 1993).

(i)	siin; ik he gewees	(modern W-Flemish)
(ii)	si; i bi gsii	(Alemannic)
(iii)	wêze; ik bin west	(substandard Frisian)

In the optimal case, Alemannic and substandard Frisian can be explained on a par with the situation in Slavonic, i.e. that some interaction with the Wackernagel position is involved (see note 29). I have no explanation for the exceptional status of modern West Flemish. The fact that dialects are involved, however, could also be an indication that the Natural Condition just describes an optimal situation, which is reached in standard langauges. If so the Naturalness Condition is not an absolute rule of grammar.

[37]This option was suggested to by Hans Bennis and Ian Roberts.

use) without rise of defectivity or allomorphia. In case that this (eventive) argument is vociferous, like in BE or HAVE, a visible interaction with other eventive indexes such as PAST arises, as the Naturalness Condition blocks a simple switch of the binding feature.[38] TO circumvent a principle B violation, wo solutions are available. The first is to turn the pronominal into a pronominal anaphor under Kayne-adjunction of a lower head (e.g. *essere-stato*). The second is to drop the morpheme that lexicalizes the pronominal feature (have-had).

We will show that the referential interpretation is the most interesting one, as it provides us with a new view on what BE really is. We will however identify this pronominal head not as an eventive argument but as a hidden body part. We will base ourselves on the ideas of Benveniste 1952 and Kayne 1993 that periphrastic constructions are in fact possessive constructions. We will interpret these constructions as involving an *inalienable* possessive. We will suggest that the pronominal nature of SE/BE originate from the presence of a silent body part. In the next section, we will show that the referential index carried by SE/BE is the R role of this silent body part.

8. BE + participle as a construct state

In the previous sections, we studied the interaction of a two-fold BE in clauses. BE turned out to be subject to the binding theory, and it could be identified as an inflected SE particle. In our analysis, we took the structure of participle clauses of Kayne 1993 as a starting point. Inspired by Benveniste (1952), Kayne takes (51) as the general structure of these periphrastic constructions.

51 ....BE ..... $DP[\ D^0$ .....X^0

However, Kayne (1993) is silent on the nature and the structure of the part that dominates this DP. As we would like to find an explanation for the fact that BE=SE (section 3), we must study the nature of the part containing BE.

In most traditional grammars, distinction is made between so-called verbal and nominal sentences. Both types are exemplified in (52).

52a John lived in Paris
b John (is) the king

Whereas in the former construction (52a), the predicate can be inflected for person and tense 'lived', the predicate 'king' (in the Western-European languages) refuses to do so in the latter type of sentences, as it concerns an NP (52b). A kind of dummy verb is inserted to support tense and inflection. The problem of this approach is that it does not shed any light on the nature of this dummy verb. Why does it behave so different from ordinary verbs? Why does it behave like a pronoun?

---

[38] An indication that the (pro)nominal nature of the head is at stake could be the defectivity in *good-better-best* which can be related to the nominal nature of *good* (cf. note 8).

We would like to put the traditional distinction between nominal and verbal sentences on a generative footing.[39] In view of the pronominal nature of BE, it is probable that the upper part in (51) is nominal. If so, it means that both the periphrastic constructions and the equative BE sentences like (52b) have the following structure.

53 .....DP[..BE DP[D^0 .....X^0

If (53) is the structure of equative, possessive and periphrastic BE sentences, the question arises what the relation is between the two DPs. How are these DPs licensed? This is not so much a problem for the higher DP, since it probably gets its licensing by incorporating into the subject agreement phrase (tense linking). The embedded DP is, however, problematic, since the higher DP, being nominal, cannot give Case and no preposition is present to do the job. We will argue that the relation between the two DPs is that of a construct state, comparable to what happen in ordinary DPs in Hebrew (54). These constructions are extensively discussed by De Ritter 1990, 1991, and Longobardi 1993.

54a ha-bayit shel ha-mora
the house of the teacher
b beit ha-mora
house the teacher (**the** house of the teacher)

In (54a), we have a possessive dependency of two DPs. The second DP gets Case by a preposition. The alternative realization of this dependency is the so-called construct state (54b). The preposition of the lower DP disappears together with the article of the higher DP. Moreover, the higher noun is phonologically reduced. This way of licensing the embedded DP can be seen as a syntactic way to compose two nouns having as a result a construct that is morpho-phonologically one word (Ritter 1990:note 3, Borer 1984, Prince 1975, McCarthy 1979). In fact, it is a syntactic morphologizing process.[40] Now, if we assume that the equative and periphrastic BE construction is basically a possessive construction, like Benveniste and Kayne propose, we could very well think of this possessive realized in a construct state. So, we will propose that an equative sentence like (52b) has in fact the semantics of roughly: "He is the king's body" in which *the king* is realized in the construct state with a (dummy) body part (*body*). Before going into the details of the analysis, we will review the nature of inalienable structures containing body parts.

---

[39]Two points of view prevail in the literature on the so-called nominal sentences. The oldest opinion is that nominal and verbal sentences are fundamentally different. The absence of a verb in equative sentences is the basic situation ("at DS"). The rise of a copular verb in the Indo-European languages is a idiosyncratic surface phenomenon (for inflexional reasons, Meillet 1937:357, Meillet & Venreys 1968:597).
The other opinion is that all sentences are basically verbal. Languages that do not have a verb in equative sentences realize an empty copular (Hjelmslev 1959, Benveniste 1960, and the early Generativists e.g. Chomsky 1965, Bach 1967). This position was important for the early generativists as the "rewriting rules" were supposed to be universal. For a discussion on both views, see Cohen (1984:1-57).
We propose a third possibility, which combines the universal approach of the Generativists with the semantic approach of the traditional grammarians. We claim that all equative sentences are verbless at DS and at SS, universally. BE in the Indo-European langauages is only seemingly a verb. In fact, it is an inflected SE particle without a VP.

[40]For an overview, see Spencer 1991:447-453.

Inalienable constructions behave like anaphors (Kayne 1975, Burzio 1986:265). Consider *temper* in (55).

55a I lost my temper
b *He lost my temper
c Peter$_i$ said that John$_j$ lost his*$_{i/j}$ temper

We encounter in contexts (55a) a pronominal pronoun that is free in its Binding Domain (DP), but is nevertheless obligatorily bound (55b) within its dominating IP (55c), i.e. they are anaphoric within IP. In terms of Kayne's Binding Theory, this can best be explained by assuming that *my* in (55) is a pronominal-anaphor. These (lexical) PRO forms are only licit if the binding domains *qua anaphor* and *qua pronominal* are distinct, namely IP and DP respectively. A pronoun like *his* is specified at DS as [+pron]. However, this does not exclude the possibility of [+pron,+ana]. This is possible if *his* gets a governor from within DP, similar to what happens in infinitives (Kayne 1991). This would obtain if *temper* Kayne-adjoins to D', just like infinitives do to I', so that an anaphoric use of *my* would be licit. Notice that if we would find evidence of such a movement, it would strongly parallel the movement of infinitives, which adjoin to I'. Infinitival movement licenses a pronominal anaphor in the specifier of the target I^0, as was argued in Kayne 1991. If control contexts and inalienable possession are really similar, (as was suggested by Guéron 1985), it is natural to assume that inalienable possessed nouns adjoin to their D', just like infinitives do to their I'. Since the Binding Theory applies both at SS and at LF, this movement can happen at SS or at LF.

Can we obtain independent evidence of such movement at SS/LF? The only possibility to trace LF movement is looking for opacity effects. Indeed, modification by an adjective destroys the necessary 'anaphoric' reading in alienable possession constructions.

56a John$_i$ lost his$_i$ way
*John$_i$ lost his$_i$ difficult way

In general, inalienable possessive constructions render impossible, as soon we modify the possessed noun with a "descriptive" adjective (Kayne 1975, Hoekstra 1991).

57a John kissed her on the mouth
b *?John kissed her on the beautiful mouth
c John kissed on her beautiful mouth

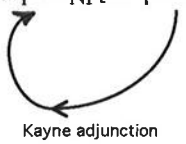
In (57a-b), we notice an understood possessive context, whose interpretation is obligatorily clause-bound. The structure (57c) has a free reference. Similar phenomena are reported for French (Cf. Kayne 1975:164, Guéron 1985:50).

58a Tu as photographié [sa belle bouche]
'You have photographed her beautiful mouth'
b *Tu lui as photographié [PRO la belle bouche]
'You her have photographed the beautiful mouth'

c Tu lui as photographié [PRO la bouche]
'You her have photographed the mouth'

This could be an indication that *mouth/bouche* indeed undergoes Kayne-adjunction to D' in (57a/58a), which movement is blocked by certain descriptive adjectives like *beautiful/belle* in (57b/58b).[41] As we have seen, such head movement of *mouth*, Kayne-adjoining to D^0, licenses the use of a pronominal anaphor in specDP. If we assume that body parts are two-argument predicates, and if we project this thematic grid in syntax, we arrive at the follwing structure.

59 $[NP_{\alpha}$.....$DP[PRO_{\alpha i}$ la^0 $NP[R$ t_i $bouche^0]$



This structure describes the two crucial properties of inalienable possession constructions: their anaphoric character and the block on descriptive adjectives. What is in fact going on, is that out of a *pronominal* a construction is created, that externally acts as were it an *anaphor,* since the PRO that it contains must be locally bound within the embedding IP.

Now, in many languages, the emphatic reflexive morpheme SELF represents some inalienable possessed noun, usually a body part, and often a quite general one, like 'soul'. For instance Sanskrit *atman*, Classical Arabic *nafs* are identical to a body part meaning 'soul/breath'. In Moroccan Arabic it is *ra:s* ('head'). In Hungarian it is *mag-* ('body') (cf. Marácz 1989:392). In other languages, this relation is more remote and SELF is only etymologically related to a body part, for instance Greek *auton*.[42] The same is true for Dutch *zelf* and English *self* which are derived from *li:f* 'body' (cf. Dutch *lijf*, German *leib* 'body') in which a reflexive morpheme SE has been incorporated. Other languages, like Biblical Hebrew, circumscribe SELF with a body part that is most appropriate in the specific context (*lev* 'hart', *¿esem* 'bones', etc., Lettinga 1992:42). This suggests that emphatic reflexives have a structure that is quite similar to inalienable possession configurations. Consider (60a).

60a He saw himself
*I saw himself

This construction is also built up out of a pronoun *him* which, by the addition of *self,* acts externally like an anaphor. The similarity with inalienable constructions suggest a structure like (60c).[43]

---

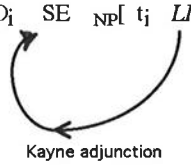
[41] Non-descriptive adjectives do not block this movement, as *left, upper* , etc..
(i) John broke her the left leg
(ii) I bit her in the upper lip
This could be an indication of the different adjunction sites for those modificators (Bernstein 1993). Apparently, only descriptional adjectives form an opaque domain for the movement involved. If modal auxiliaries are adjuncts (Picallo 1990), the block on infinitival modal auxiliary would parallel the block on descriptive adjectives in IA constructions like (44b).

[42] The etymology is not certain, but it is probably related to Skt. *atman* 'breath', Dutch *adem* 'breath'.

[43] To derive the correct order of *himself* we must assume the functional projection of which SE is the head to be head-final. For presentational reasons we abstract away from word order.

60b [R POSS */LIF/*^{0}]$_N$ Thematic grid of the (dummy) body part[44]

c DP[PRO$_i$ SE $_{NP}$[t$_i$ *LIF*^{0} DP[him]]] 'himself'



In (60b) we represented the thematic grid of a body part.[45] We assume this grid to be projected in syntax. In (60c), this predicate *LIF* is inserted in a full DP structure. The subject of this predicate, which carries the R role (in the sense of Williams 1981) is PRO and is licensed in a similar way to what happens in infinitives Kayne (1991) or like in SE constructions (Kayne 1992). SE always licenses an empty argument in its specifier, which is PRO (Kayne 1992). To license this PRO in specDP, the abstract body part, *LIF*, must Kayne-adjoin to D' in order to govern PRO *from within* DP. The other argument, which carries the possessor role, is licensed if we assume that the whole DP constitutes a construct state. This is not improbable since the noun moves up to D^0 and is phonologically reduced as *lf*.[46] Notice that the whole construction acts as an anaphor since this PRO must be bound in its minimal binding domain; this is the first binding domain dominating the construction. In this way, anaphoric dependency is reduced to a case of Control.

If the similarity of SELF constructions with inalienable possesion constructions is real, it provides us with a promissing tool to relate HAVE and BE semantics. Notice that the SELF construction (in the construct state) evokes the idea of identity whereas the unreduced state evokes the usual idea of a possession. This can be nicely demonstrated with Dutch (61a-b).

61a	Jan ze lijf	HAVE semantics	(John his body=John's body)
b	Jan ze-lf	BE semantics	(John himself)

The BE semantics arises if the bodypart becomes dummy (61b). Probably, this is only because such a dummy bodypart can cover any property of *Jan*. As *Jan* is the sum of all his properties, such a dummy bodypart can very well cover his identity. If so, one may say that identity is not a primitive in natural language This is very much in line with Leibnitz' law: "Two objects are identical if they have the same properties". If Leibnitz is right[47], one can reduce all identity statements to possessive statements.

---

[44]The order of the arguments reflects the hierarchy.

[45]That the dummy body part is the head can be seen from Hungarian where *magam* ('myself') triggers the nominal conjugation, typical for definite 3rd person objects. 1 and 2 person objects trigger the verbal conjugation (Marácz 1989:98-99).

(i) Látom magamat
see-AGR1sg.def body-1sg-ACC I see myself

(ii) Látsz engem
see-AGR2sg.indef me You see me

[46]We will not go into the question *how* or *where* a DP can be licensed in the construct state. Perhaps the licensed DP is moved to a higher functional projection (Ritter 1990). For an account that licenses this DP *in situ* cf. Postma 1993b. In such an account we have to assume that the functional head in which SE resides is post-nominal. Evidence for a backward movement can be found in construct states in head-final languages, e.g. patronymia in Frisian. Patronymia in Frisian are, like in Hebrew, construct states. However, no fronting of the higher head is observed. (Probably the same is true for English patronymia like John-sen).

[47]In second-order logics, it can be represented as (i) (Gamut 1982:190).

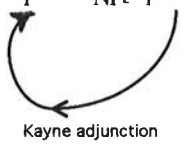
(i) $\forall_x \forall_y[x=y] \leftrightarrow \forall_X[X(x) \leftrightarrow X(y)]$

(continued on next page)

Having reviewed the analysis of inalienable possession[48], we are in the position to apply the analysis to equative BE constructions, like "He is the king". If we would analyse these structures as having the semantics of "He is the king's body", we can draw a similarity with SELF constructions. This is attractive as the SELF constructions evoke a semantics of identity (61b). The application to sentential equative constructions is rather straightforward. If we embed structure (60b) into an IP context, the analysis of (62a) turns into (62b).

62a He is the king "He embodies the king/He SELFs the king"

b $IP[He\ I^{\alpha}$ ..... $DP[\ PRO_i\ SE^{\alpha}\ NP[\ t_i\ LIF^0\ DP[$ the king$]]]]$



In (62b), the dummy body part LIF is the predicative head of the constructions which Kayne-adjoins to SE just as in the SELF-construction or in infinitivals to license PRO. This PRO realizes the referential role of the body part. The possessor of the body part *the king* is licensed through the construct state. The head LIF is phonologically reduced in this construct state (in this case reduced to null). SE+LIF moves up to AGR_S in order for the higher DP (i.e. LIF) to be licensed, giving rise to an inflected SE particle (BE). As the D^0 constitutes a head with gender, but without person, it can merge with the AGR_S without causing a clash of ϕ-features, as AGR_S is typically a projection which carries PERSON. It is interesting that the so-called "predicate" *the king* is in fact an argument of the inalienable predicate in the construct state rather than the predicate itself. The real predicate is not phonologically realized (/LIF/). The SE particle is necessary to license the referential role of a silent body part.

Hence, we reached our aim of getting a fundamental explanation for the pronoun-like behaviour of BE: equative BE is composed out of a SE-particle which has merged with AGR_S. The particle SE is necessary to license an empty argument (PRO) which carries the referential role of the dummy body part. In this way, a context is created in which Control is possible. This PRO is controlled by the structural subject position, similar to what happens in reflexive SE constructions (Kayne 1992, Postma 1993c). As Kayne (*op. cit.*) argues, SE is pronominal. This gives an explanation for the pronoun-like behaviour of BE. Crucial in this derivation is that the Possessor cannot move up to specIP directly. Kayne (1993) argues that is is so because of improper movement, as $specD^0$ is an A-bar position. We will return to this when we give an analysis of HAVE.

Evidence that BE is a D^0 (i.e. SE which has been inflected by moving to AGR_S) can be found in the phenomenon of copula-drop, well-known from Latin. One should notice that there is a high correlation between this copular-drop and the occurrence of empty articles, i.e. an empty D^0. In languages like Latin, Russian, Hungarian, Arabic, Hebrew, D^0 may remain empty. This is immediately explained if the structure of (62) is

---

(continued from previous page)
For some discussion cf. Shiguro (1990:17ff). In other words, the dummy body part act as a variable bound by a universal second-order quantifier.

[48]For a more elaborated account cf. Postma 1992c.

correct, as it identifies the copula as a D^0. As far as it is correct that no other restrictions are present on the drop of D^0 in ordinary DPs and in DPs in a construct state, we expect the correlation to be perfect.

In sum, we found a uniform characterization of inalienable constructions, heavy reflexives and equative sentences: equative sentences consist — just like inalienables and reflexives — of *possessive* constructions with an empty inalienable predicate in a construct state. Such constructions necessarily contain a SE-particle which licenses the R-role of the (silent) body part. This SE merges with AGR_S which results in BE. As SE is pronominal, it gives an explanation for the pronominal behaviour of BE. The same holds true for periphrastic tenses. The participle is licensed since BE+participle form a construct state.

9. HAVE + participle as a construct state

What about HAVE? As we saw in section 3, HAVE has some pronominal behaviour as well. We followed Hoekstra (1991) and Kayne (1993) who suggested that HAVE contained BE. Can the nature of HAVE be captured on the basis of (62)? It would be outside the scope of this article to give a full account of HAVE. However, we will briefly speculate on the issue. Notice that the empty operator (PRO) in (62) is formally licensed by SE, just as in control strucures, but that the argument does not obtain Case. This means that (62) is essentially a predicative structure comparable to the "is to be done" constructions. Further more, this argument cannot move further up to specIP to be case-licensed since $specD^0$ is an A-bar position (Kayne 1993) and hence this would result in improper movement. It probably *must* land in specDP because of minimality. However, suppose that we do not insert a body part with *two* arguments but with *three* arguments (say *hand*, which presumably has in addition to its R and a Possessor role, a kind of Content role. We feel that it is a distinctive feature of *hand* that it can contain something). So, we assume that the thematic frame of *hand* can be represented as in (63).

63 $_{NP}$[R Poss Content —] (HAND)

If we again create a construct state, it is plausible that the role governed by *hand* is licensed, i.e. the Content. The R-role is again licensed in specDP by SE. However, the possessor role is not licensed yet. If this role now moves up to specIP we get a seemingly transitive structure. Movement to specIP is now possible since the possessor does not need to land (and in fact cannot land) in $specD^0$, since this place is already saturated.[49] If this abstract body part, *hand* (HD) moves up to SE and further to AGR, we get a structure with HAVE semantics.

[49]We must then assume that minimality should be formulated in a "nested" way, comparable to the proposals of Pesetsky (1982,1987) with respect to A-bar movement.

64a He has a house
b [R POSS — CONTENT] (thematic grid of HAND)
c $IP[He_k$ I $DP[$ PRO_i SE $NP[$ t_i t_k DP[a house] $HAND^0$]]]

The structure is reminiscent to the configuration proposed by Szabolcsi 1983, Kayne 1993, and can be taken as a articulated version of (44b); the crucial difference with Kayne's proposal is that SE (=BE) is the head of the higher DP. This is consistent with the fact that SE is a pronoun (Kayne 1992). Pronouns seem to be D^0 (Postal 1969). We further identified Szabolcsi's and Kayne's Possessor Phrase as a body part predicate. In the construct state, this body part HAND licenses *a house* and is phonologically reduced but not to null. This is probably the reason that it can function as an opacity factor for local binding in (44b). As we saw, this opacity factor is needed to avoid a principle B violations in those cases that the embedded DP (*house* in (64)) carries the same index as SE through tense-linking, i.e. in case this DP is a participle. In this approach, incorporation of the body part into D^0 and subsequently to AGR_S happens both in BE and HAVE constructions. Hence, the fact that the possessor can be extracted in HAVE constructions but not in BE constructions can not be attributed to the A/A-bar status of specDP in conspiracy with a Governing Transparency Corrolary, like Kayne suggests (1993:6). If the representation (64a) is correct, the extractability of the possessor might be attributed to the *number* of arguments of the body part predicate, rather than to the A-or A-bar nature of specDP. In this way, minimality is circumvented, as the A-bar position is already saturated.[50]

However, there is a problem with the representation (64c). Why can PRO, which represents the referential role of the body part, never be controlled by the subject? In other words, why can't (64c) evoke the semantics of identity or reflexivity?[51] This problem would dissolve if we assume that the specifier of D^0 is simply not-there in these HAVE constructions (64d).

64d $IP[He_k$ I $DP[$ SE $NP[$ pro t_k DP[a house] $HAND^0$]]]

If the representation (64d) is correct, it is immediately explained why the licensing of the empty referential role by SE cannot create a PRO as PRO is only licit if it is in a specifier position and is governed from within its own projection. This is only possible in $specD^0$. If this position is not there, the referential role can only be pro, locally identified by SE. Second, structure (64d) explains why the possessor can be extracted in these HAVE constructions, since it does not have an intermediate A-bar landing site in specDP. Third, movement of the possessor to IP is only possible with a three-place predicate like HAND, as in two-place predicates the possessor is already licensed by the construct state. So, (64d) gives the desirable predictions. Is there also any independent

[50]This way of circumventing minimality can also be observed in passive and reflexive SE constructions (i).
NP_k .....PRO_i SE [t_i V t_k] (with i=k or i≠k)
(cf. Kayne 1992). For a discussion, see Postma (1993c).

[51]To say that this PRO is PRO_{arb} is *ad hoc.*

evidence that the specifier is not realized in constructions like (64d)? And second, is there any way to understand why this should be so?

The key to this problem can, once again, be found in the fact that structures like (64d) involve construct states. In the literarture, it has been argued (e.g. Ritter 1991) that in construct states the definiteness of the lower DP is inherited by the higher DP (*beyt* in (54b) from the lower noun (*mora*). This would mean that in case of a definite NP in a HAVE construction, the higher D^0 would be [+specific] as well. If we assume that specific heads realize their specifier (which is a quite natural assumption), we predict that the possessor can not be extracted from the higher DP to an A-position, because of improper movement, *whenever the lower DP (house) is definite*. This would predict that sentences like (65b) would be ungrammatical in opposition to (65a). This is obviously not the case. Both constructions are grammatical.

65a	I have a book	(possession)
b	I have your/that book	(i.e. *with me, at home*)

However, one should notice that the *meaning* of HAVE slightly changes in case of a definite object. A more locative reading arises (cf. Kayne 1993:27).[52] This effect shows most clearly up with kinship terms. Definite complements render impossible with HAVE whenever inalienable possession is intended. So, sentences like (66a) are impossible in the sense of (66b).

66a	*I have your father (too)
b	I have the same father as you

On the other hand, an alienable or locative reading of (iii) is grammatical, as can be seen from (67).

67 I have your father (in my car)[53]

So, if the lower NP is definite, only an *alienable* possessor can "run away from home" This could be explained either by an other escape hatch of the alienable possessive or by the fact that no construct state might be created. I leave this for further research. These definiteness effects may, however, serve as support for the idea that HAVE constructions are construct states.[54] It provides us with a theoretical explanation why no specifier of the higher DP is present in (64d).

---

[52]Construction (65a) has both readings. This corresponds with the fact that in construct states an indefinite 'nomen rectum' does not necessarily induce a definiteness of the 'nomen regens', whereas a definite 'nomen rectum' obligatorily induces a definite 'nomen regens'.

[53]The different reading of HAVE becomes clear from the translation into Portuguese.

(i)	Eu estou com seu pai no carro	*(I BE_2 with your father in the car)*
(ii)	*Eu tenho seu pai no carro	*(I have your father in the car)*

Given the decomposition of BE_2 into SE+ Locational small clause. A similar suggestion in (Kayne 1993:27).

[54]The process of construct state formation probably extended to all verbs in Hungarian, giving rise to two *subject* agreement paradigms, which are chosen on the basis of the *definiteness of the object.* (Marácz 1989:95). This can be easily explained in terms of construct states, cf (i-ii).

(i)	$_{IP}[NP_i\ AGR_S$ ... [AGR_O [t_i V DP_{indef}]]]	(indefinite verbal inflection)
(ii)	$_{IP}[$ AGR_S .. [NP_i AGR_O [t_i V DP_{def}]]]	(definite verbal inflection and nominal inflection)

(continued on next page)

Notice that also an other licensing structure of (64b) is possible. If the predicate HAND does not move up, no construct state is created. Hence, the CONTENT role ('a house' in 64c) remains without licensing. This argument moves up to specIP to receive Nominative. This is possible since DP is not specific as no construct state is created . The POSSESSOR 'me' must be realized in an oblique case (e.g. possessive, dative). The R role is again licensed by SE.

68 $IP[The\ house_k\ I \cdots DP[\ SE^{\alpha}\ NP[\ pro\ me_{Dat}\ t_k\ HAND\ ]]]$

This SE must move up to AGR_S in order for the whole DP to be licensed. Obviously, this again creates BE. As the configuration is not a construct state, the head HAND is *not phonologically reduced.* This kind of construction can be found for instance in Vai (Nigeria), taken from Benveniste (1966:195).

69 ken ?be m 'bolo
house is my hand
'I have a house' (only *alienable* possession)

Notice that possessive BE is SE+AGR, whereas equative BE would be SE+LF^0+AGR. Phonologically, however, there is no difference since *LIF* is reduced to null.[55, 56]

If the analysis proposed here is on the correct track, the differences between nominal and verbal sentences are minimal. They are similar in that they are both

---

(continued from previous page)
Only with the indefinite complements can the DS-subject be extracted out of AGR_OP=DP and can trigger the verbal flection I^0 (i). If the complement is definite, the subject has to stay within AGR_OP=DP and triggers nominal inflection in AGR_O. If this identification in Hungarian is correct, we probably can see the changes in the 'root' of BE_{pres} in the Indo-European languages as the only "remnant" in IE of the nominal/possessive agreement system. (In Dutch, the AGR_O paradigm would then be: /B/, /B/, /S/, /S/, /S/, /S/ and would reflect Postal's feature [± III]). Notice further that this 'construct state' approach gives also prospects to describe the interaction of (in)definiteness of the object and (in)perfect aspect (Hopper & Thomson 1980).

[55]Again, the construction of (65) is only grammatical in case of ***alienable*** possession. As inalienable possession is concerned, the predicate can obviously be inserted in the position of HAND itself, and a configuration is expected in which no *'bolo* shows up. This is indeed the case, as can be seen from (i) (Benveniste, *loc. sit*).
(i) nku-n ?be
head-my is
'I have a head' *(inalien.)*

[56]As we discussed in section 6, locative BE (ESTAR) is composed out of a SE particle and a Locative predicate. To make the analogy complete, we could identify the embedded predicate /TA/, instead, as a predicative body part as well, say FEET.
(i) [R Poss Location $FEET^0$] (thematic grid of FEET)
The referential role will be licensed in specDP which contains again a SE, Poss is licensed in specIP, whereas the Locative is licensed by construct state formation.
(ii) João está na praça
$João_k\ I^0$ [PRO_i SE [t_i t_k [na praça] FT^0]]]
If this approach is correct, essential predicates could perhaps be in fact body parts. We conjecture that those verbs which will turn out to be subject to the binding theory and which show root allomorphia in the past tense might contain a predicative body part; especially the modal auxiliaries (e.g. [can]- [cood]).
Notice that this proposal is fundamentally different from the analyses of Jackendoff 1991, who uses body parts as basic *arguments* in a frame. We think of body parts as the basic *predicates.* For instance, the example that Jackendoff gives, *drink,* might be analyzed as (iv-v).
(iii) They drink/drunk the beer
(iv) [R Poss CONTENT —] (thematic grid of, say, MOUTH)
(v) $John_k\ I^0$ [R_i SE [t_i t_k the beer $MOUTH^0$]
The allomorphia in *drink/drunk* ("Ablaut") could then be the phonological realization of the switch in binding features of the referential role of MOUTH, when inserted under PAST. Research is needed to find out whether allomorphia correlates with syntactic effects of construct state formation (e.g. definiteness effects).

predicative. They just differ in containing a verbal or a nominal predicate (LIF) respectively. This dummy nominal predicate is realized in a construct state. This gives rise to its phonological reduction.[57] Hence, we can give the following general structures of verbal and nominal sentences, respectively.

70 CP[IP[AGR_S ↗ AGR_OP[AGR_O.. VP[DP V^0 DP_2] (verbal sentences)
↘ DP1[PRO_i SE^0 ...NP[t_i LF^0 DP_2] (nominal sentences)

Both verbal and nominal sentences start out as a CP and an IP which contain the person inflection. The next projection is uniformly a gender projection. However, two options are available. It can be an AGR_O or a DP. Notice that (70) also provides a characterization of periphrastic tenses. They constitute nominal sentences in which the lower object DP_2 is a participle[58]. This participle is just like *the king* in (62a) licensed through the construct state. In this way, the possessive nature of the perfect tenses as argued for by Kayne and Benveniste is captured optimally. Moreover, (70) shows the similarity between passive SE constructions (with SE in AGR_O) and passive BE constructions in an optimal way.[59]

10. Toward a Syntactic Theory of Allomorphia

In the previous sections we have discussed the suppletive character of the verb BE from a syntactic point of view. As we followed Hoekstra 1990 and Kayne 1993 and took HAVE as being composed out of BE, we would expect that the defectivity of BE will also have its reflex in HAVE. As HAVE *contains* BE, we would expect *partial* defectivity rather than full defectivity. HAVE shows what is usually called allomorphia (or 'irregularity'). Curiously, although the allomorphia of HAVE is widespread, it does not have such a general pattern. Because of the complexity of the phenomenon, we can only touch upon the subject.

Notice first that configuration (22a) gives prospects on the allomorphia of HAVE in the past tense, as structure (22a) cannot be embedded under PAST as it stands (71a).

71a	*$PAST_i$	BE_i	(HA)	BE_i	*HAVED BEEN
b	$PAST_i$	$Ø_i$	(HA)	BE_i	HA-ø-D BEEN

As PAST carries an index, the sequence PAST--BE gives rise to a principle B violation. Apparently, some anaphoric form of BE must be inserted. In English this seems to be null, as some morpheme has dropped in the past tense of HAVE, giving rise to HA-D

[57] It could be that this is the reason that BE is athematic.

[58] We assume that participles are definite, so that extraction is impossible. Perhaps participles of unaccusatives in languages with auxiliary selection (e.g.Italian) have the special property of being *indefinite*. Hence extraction of the object is possible. Other languages, like English, must switching to HAVE to avoid a minimality violation.

[59] Verbal SE constructions have an additional reflexive reading (which lacks in BE constructions) because the reflexive reading is triggered by PERSON agreement (Postma 1993c). Since PERSON agreement is absent in participles (DP_2) and in DP_1, the reflexive reading is absent in the nominal construction.

instead of the expected HAVED. Apparently HAVE is not only composed out of BE in an abstract way, but we may identify the /VE/ morpheme in HAVE as the lexicalisation of BE. The /HA/ morpheme should then be identified as the (opacity) factor X that incorporates into BE. We anticipated this identification in (71). This indicates that allomorphia of the auxiliary HAVE can be reduced to the BT, as well. Curiously also other auxiliaries in English show a similar allomorphia.

72a [c-an] - [c-oo+d]
b [w-il] - [w-oo+d]
c [sh-al] - [sh-oo-d]

We find *should* (i.e. [sh-oo-d]) instead of the expected *shalled.* Similar effects in Dutch and Frisian.[60] Also in the Romance languages, modal auxiliaries often show a special pattern of "irregularity". The cross-linguistic special morphological status probably indicates that we should think of it as the reflex of some underlying syntactic process, rather than of a lexical idiosyncrasy. If so, it is plausible that a mechanism is at stake quite similar to what happens in BE/HAVE. This is especially so, since modality can often be re-phrased in terms of HAVE, e.g. "can..." means "has the power of....". Crucially, the fact that the morpheme /AL/ in *shall* drops in the past tense, which indicates that /LL/ carries a pronominal index. It probably realizes the R-role of a hidden body part related, which we will call /SHA/ (we will retrun to this in a moment). So we are led to a structure like (73c).

73a He shall [proposition]
b Thematic grid of /SHA/: [R POSS CONTENT —]
c $IP[He_k\ I\ \ DP[\ \ /LL/\ NP[R\ t_k\ DP[proposition]\ \ SHA^0\ ]]]$

We again have in (73) a three-place predicative body part /SHA/. The possessor is licensed in specIP. The R-role is licensed as pro by /LL/, whereas the CONTENT role is licensed via the construct state. The morpheme /LL/ carries a pronominal index as it *lexicalizes* the AGR_O position, according to Kayne's rule that all pronouns are pronominal. Remarkably, this /LL/ excludes the presence of the inflectional morpheme /-s/ (74).[61]

74 *John shalls walk

---

[60]In Frisian, all auxiliaries have consonantal allomorphia in the past tense, comparable to what happens in English. In Dutch, only *zullen-zou* ('shall-should') and *willen-wou* ('want') have consonantal allomorphia (in the optative meaning). The other auxiliaries in Dutch have vocalic allomorphia.

(i) Ik wou/*wilde dat ik rijk was (optative)
I wish I was rich
(ii) Toen ik jong was, wou/wilde ik piloot worden
When I was young, I wanted to become a pilot

I t is not unconceivable that consonantal and vocalic allomorphia have different syntactic status.

[61]The intimate relationship between 1. auxiliaryhood (e.g. possibility of inversion, compatibility with negation, and selection of an infinitival), 2. morphological allomorphia in past tense; and 3. the drop of /s/ can be seen from *dare* and *need* which fluctuate between full verb and auxiliary verb. Morphological properties like the drop of /s/, co-fluctuate with syntactic auxiliaryhood.

In the literature, one can find some discussion on the nature of this 3rd person inflectional morpheme /s/. Hill (1958) and Postma (1992) argue that English verbal /s/ represents gender inflection. Kayne (1989) argues that it is [-Plural]. Kayne (1993:4) identifies it as [-Person]. So let us generalize over these proposals and identify /s/ as [-Person] & [-Number]. If so, it might be identical to SE and hence in AGR_O position.[62] Now, if structure (73) is correct, /LL/ is in AGR_O. This gives us a first syntactic explanation why the morphemes /s/ and /LL/ are mutually exclusive.[63] We may conclude that structure ((73c) gives promissing insights in the nature and morphologic behaviour of auxiliaries.

11. Conclusions

We have studied the defectivity of BE from a syntactic point of view. We concluded that auxiliaries behave like pronominals with respect to the binding theory. This could be derived by assuming that BE is an inflected SE-particle.

The defectivity of BE and the partial defectivity of HAVE are not lexical idiosyncrasies but are of syntactic origin. They are a phonological reflex of the different binding features that are conveyed by the various tenses of BE. Because of the Naturalness Condition, phonology reflects (or tends to reflect) the underlying syntactic features optimally. The arbitrary relation between *significant* and *signifié* is only valid in the realm lexical categories but not in the realm of functional categories.

The special binding behaviour of BE and HAVE is a consequence of the presence of a predicative bodypart within auxiliary constructions. This body part is morphologized by a phonological reduction process which is related to construct state formation. Moreover, the presence of the body part gets a phonological reflex in the rise of morphological defectivity and allomorphia.

Leiden, March 1993

Dept. of General Linguistics
Univ. of Leiden
Postbus 9515
2300 RA Leiden
tel. +31-71-272106
E:mail:
postma@rulcri.leidenUniv.nl

---

[62] Kayne suggests that the English verbal /s/ is identical to the nominal possessive flection /s/.

[63] Further evidence that AGR_O is at stake in English comes from German, where no allomorphia of modal verbs can be observed in the past ('sollen-sollte-gesollt'). The allomorphia of SHALL in Dutch, Frisian and English correlates with a non-realization of SE in (modal) middle constructions in Dutch, Frisian and English.

i-a	Diese Bücher lesen **sich** leicht	(German)
b	Dizze boeken lêze maklik	(Frisian)
c	Deze boeken lezen gemakkelijk	(Dutch)
d	These books read easily	(English)

This could be explained if German has more functional projections to realize its morphology. If so, this could also be the reason of the ortho-morphic past formation of CAN in German: if the /LL/ morpheme does not need to reside in AGR_O in German, /LL/ is not in a pronominal clitic position, and hence does not need to be pronominal. Hence no binding effects under PAST are to be expected. Since the German verbal 3rd sg flection is in complemetary distribution with the /LL/ morpheme (e.g. *er sollt), the 3rd person /t/ doesn't reside in AGR_O either. This is confirmed by the shape of 3rd person BE in German, which realizes both SE and /t: er ist, Eng. *he ises, Du. *hij ist, Fris. *hy ist.

References

Alvar, M. (1953). *El dialecto Aragones.* Madrid: Gredos.
Anderson, S. R. (1982). Where's Morphology? *Linguistic Inquiry*, 13, p.571-612.
Aoun, J. (1985). *A Grammar of Anaphora.* Cambridge: MIT Press.
Bach, E. (1967). *To Have* and *To Be. Language*, 43, 462-485.
Bennis, H. & Hoekstra, T. (1989). *Generatieve Grammatica.* Dordrecht: Foris.
Bennis, H. J. (1990). A note on Modal Passives. In J. Mascaró & Nespor, M. (eds.), *Grammar in Progress* (pp. 33-40). Dordrecht, The Netherlands: Foris.
Benveniste, E. (1939). Nature du signe linguistique. *Acta Linguistica*, I; (Reprinted in: Problèmes de linguistique générale (1966:49-55), Gallimard, Paris).
Benveniste, E. (1952). La construction passive du parfait transitif. *Bulletin de la Societé de Linguistique de Paris, XLVIII*(reprinted in: Problemes de linguistique générale, Gallimard, 1966, p. 176), re.
Benveniste, E. (1960). "Etre" et "Avoir" dans leurs fonctions linguistiques. *Bulletin de la Société de Linguistique LV (1960) Reprinted in: Problèmes de linguistique général, Gallimard, 1966, Paris*, pp. 187-207.
Beretta, C. (1980). *Grammatica del Milanese.* Milano: Accademia del Dialetto Milanese.
Berman, R. G., Alexander (1976). Aspects of the Copula in Modern Hebrew. In P. Cole (Ed.), *Studies in Hebrew Syntax and Semantics* (pp. 265-285). New York: Elsevier.
Besten, H. d., Edmondson, J.A. (1983). The verbal complex on continenetal West Germanic. In W. Abraham (Ed.), *On the Formal Syntax of The WestGermania* (pp. 155-216).
Bickerton, D. (1975). *Dynamics of a Creole system.* London: Cambridge University Press.
Bjerrome, G. (1957). *Le patois de Bagnes (Valais)* (Doctoral dissertation Univ. Goteborg, Almqvist & Wiksell, Stockholm.
Bopp, F. (1820). Analytical Comparison of the Sanskrit, Greek, Latin and Teutonic Languages. *re-edited in: F. Tecner, Internationale Zeitschrift für allgem. Sprachwissenschaft IV (1888).*
Bowie, M. (1987). *Freud, Proust and Lacan: theory as fiction.* Cambridge: Cambridge University Press.
Bray, R. G. A. d. (1969). *Guide to the Slavonic languages.* London: Dent & Sons.
Burzio, L. (1986). *Italian Syntax.* Dordrecht, Netherlands: Reidel.
Butz, B. (1981). *Morphosyntax der Mundart von Vermes (Val Terbi).* Bern: Francke.
Canepari, L. (w.y.). *La Lingua Italiana nel Veneto* . CLESP, Padova.
Castelfranchi, C. &. Parisi, D. (1976). Towards one SI. In V. Lo Cascio (Ed.), *Italian Linguistics* (pp. 83-121). Lisse: The Peter de Ridder Press.
Chomsky, N. (1965). *Aspects of the Theory of Syntax.* Cambridge (MA): MIT Press.
Chomsky, N. (1981). *Lectures on Governing and Binding.* Dordrecht, Netherlands: Foris.
Chomsky, N. (1982). *Some Concepts and Consequences of the Theory of Government and Binding.* Cambridge Mass.: MIT Press.
Chomsky, N. (1986b). *Knowledge of Language.* New York: Praeger.
Chomsky, N. (1992). *A Minimalist Program for Linguistic Theory*, ms. MIT, Cambridge (MA),
Cohen, D. (1984). *La phrase nominale et l'évolution du système verbal en sémitique : étudesde syntaxe historique.* Leuven: Peeters.
Déchaine, R.-M. (1993) *Predicates across Categories: Towards a Category-Neutral Syntax.* Doctoral dissertation.
Degraff (1992). *On negation in Haitian*, talk held at the Going Romance Conference, Utrecht, 1993,
Den Dikken, M. (1992) *Particles.* Doctoral dissertation, Leiden University.
Diesing, M. (1988). Bare plurals and the stage/individual contrast. In M. Krifka (Eds.), *Genericity in Natural Language* (pp. 107-154). Tübingen.
Diesing, M. (1990) *The syntactic roots of semantic partition.* doctoral dissertation, Univiversity of Amherst.
Doron, E. (1983) *Verbless Predicates in Hebrew.* Ph.D. dissertation, Texas University.
Doron, E. (1986). The Pronominal Copula as Agreement Clitic. In Borer (Eds.), (pp. 313-332).
Eid, M. (1983). The Copula Function of Pronouns. *Lingua*, 59, 197-207.
Eid, M. (1991). Verbless Sentences in Arabic and Hebrew. In B. Comrie (Ed.), *Perspectives in Arabic Linguistics III* (pp. 31-61). Amsterdam: Benjamins.
Einarsson, S. (1945). *Icelandic. Grammar, Texts and Glossary.* Baltimore: John Hopkins Press.
Ernout, A. (1945). *Morphologie historique du Latin*, Paris.
Forrester, J. (1980). *Language and the origins of psychoanalysis.* London: Macmillan.
Freud, S. (1910/1953). The Antithetical Meanings of Primal Words, talk 1910. In *Standard Edition of the Complete Psychological Works of Sigmund Freud* London: The Hogarth Press.
Gamut, L. T. F. (1982). Logica, taal en betekenis. Utrecht: Het Spectrum.
Gonda (1966). *A Concise Elementary Grammar of the Sanskrit Language* (Translated from German edition of 1960 by G.B. Ford Jr. ed.).
Guéron, J. (1985). Inalienable possession, PRO-Inclusion and Lexical Chains. In J. Guéron (Eds.), *Grammatical Representation* Dordrecht: Foris.
Guéron, J. (1986). Le verbe Avoir. In P. Coopmans Bordelois, I., & Smith, D. (eds.), *Formal parameters of genersative Grammar II, Going Romance 1986.* Dordrecht: Foris.
Guéron, J. (1991). Le clitique SE et la grammaire des pronoms indéfinis. In J. G. &. J.-Y. Pollock (Eds.), *Grammair Générative et Syntax Comparée* (pp. 191-213). Paris: Editions CNRS.
Guéron, J., T. Hoekstra (1988). Les chaînes-T et les verbes auxiliaires. In G. Booij A. Hulk (Eds.), *Lexique et syntaxe en grammaire générative* (pp. 61-85). PU Lille.
Haeringen, C. B. v. (1955). *Zijn* en *wezen*. In *Taal en Tongval 6, reprinted in Gramarie 1979, p.203-206*
Heggie (1988) *The Syntax of copular structures.* doctoral dissertation, Univ. of South California.
Higginbotham, J. (1985). On Semantics. *Linguistic Inquiry*, 16(4), 547-593.

Hjelmslev, L. (1959). *Essais Linguistiques*. Copenhague:
Hoekstra (1991). To Have to Be Dative. In H. Haider, Olsen, S., Vikner, S. (eds.), *Proceedings of the 7th Workshop on comparative Germanic syntax*
Hoekstra, T. &. R. Mulder. (1990). Unergatives as Copular Verbs; Locational and Existential Predication. *The Linguistic Review*, 7, 1-79.
Hoekstra, T. A. (1984). *Transitivity*. Dordrecht: Foris.
Hoekstra, T., I. Roberts (1989). Middle Constructions in Dutch and English. In E. Reuland. (ed.), *Knowledge of Language*
Holm, J. A. (1988). *Pidgins and creoles* (I. Theory and structure. II. Reference survey. Cambridge: Cambridge University Press.
Hopper, P., Thomson, S.A. (1980). Transitivity in Grammar and Discourse. *Language*, 56, 251-299.
Huber, J. (1933). *Gramática do Português Antigo*. Lisboa: Fundação Gulbenkian.
Johnston, T. (1993). Hoe hat it nou einliks west? *to appear in: Tydskrift foar Fryske taalkunde*.
Jones, M. (1988). Sardinian. In M. Harris, Vincent, N. (Eds.), *The Romance Languages* (pp. 314-350). London: Routledge.
Kahn, C. H. (1973). *The verb "be" in Ancient Greek*. Dordrecht: Reidel.
Kayne, R. S. (1991). Romance Clitics and PRO. *Linguistic Inquiry*, 21(4), 647-686.
Kayne, R. S. (1992). *Anaphors as Pronouns*, Guest Lecture MIT,,
Kayne, R. S. (1993). *Toward a Modular Theory of Auxiliary Selection*, talk held at Going Romance Conference, Utrecht, 1993,
Kazazis, K. (1968). The modern Greek verbs of 'being'. In J. W. M. Verhaar (Ed.), *The verb BE and its synonyms* Dordrecht: Reidel.
Kern, J. H. (1912). *De met het participium praeteriti omschreven werkwoordsvormen in 't Nederlands*. Amsterdam: Johannes Mueller.
Keyser, S. J., T. Roeper (1984). On the Middle and Ergative Constructions in English. *Linguistic Inquiry*, 15, 381-416.
Keyser, S. J., T. Roeper (1992). Re: The Abstract Clitic Hypothesis. *Linguistic Inquiry*, 23, 89-125.
Kitcher, P. (1992). *Freud's Dream, a complete interdisciplinary science of mind*. Cambridge (MA): MIT Press.
Kratzer, A. (1989). Stage-level and Individual-Level Predicates. In E. Bach Kratzer, A., Partee, B (eds.), *Papers on Quantification* NSF Report, Univ. Massachusetts, Amherst, USA.
Lepschy, G. C. (1982). Freud, Abel et gli opposti. In *Mutamenti di prospettiva nella linguistica* (pp. 173-198). Bologna: Il Mulino.
Lettinga (1992). *Grammatica van het Bijbels Hebreeuws*. Leiden: Brill.
Li, C. H., Thompson, S. (1977). A mechanism for the development of copula morphemes. In C. N. Li (Ed.), *Mechanisms of syntactic change* (pp. 419-444). Austin: University of Texas Press.
Longobardi, G. (1993). Construct State in Romance: A Minimalist Interpretation, paper presented at the 6th Symposium on Romance Languages and Linguistics, Utrecht, 1993
Luria, M. (1930). *A study of the Monastir dialect of Judeo-Spanish*. New York: Inst. de las Españas en los Estados Unidos.
Lyons, J. (1968). *Introduction to Theoretical Linguistics*. Cambridge: Cambridge University Press.
MacGregor, R. S. (1991). *Outline of a Hindi Grammar*. Oxford: Clarendon Press.
Majumdar, M. J., Morris, A.M. (1980). The French pluperfect tense as a punctual past. *Archivum Linguisticum*, XI(1), 1-12.
Marácz, L. (1989) Asymmetries in Hungarian. doctoral dissertation, Univ. of Groningen.
McCarthy, J. (1979) *Formal Problems in semitic Phonology and Morphology*. Doctoral dissertation MIT.
Meillet, A. (1906). La phrase nominale en indo-européen. *Mémoires de la Société de Linguistique*, 14, 1-26.
Meillet, A. (1924). Le développement du verbe "avoir". In *Antidoron: Festschrift Jacob Wackernagel zur Vollendung des 70. Lebensjahres am 11. Dezember 1923 gewidmet von Schuelern, Freunden und Kollegen* (pp. 9-13). Goettingen: Vandenhoeck & Ruprecht.
Meillet, A. (1937). *Introduction à l'étude comparative des langues indo-européennes*. Paris:
Meillet, A., Vendreyes, J. (1968). *Traité de grammaire comparée des langues classiques*.
Moll, F. (1968). *Gramàtica Catalana, referida especialment a les Illes Balears*. Palma de Mallorca: Editorial Moll.
Moutaouakil, A. (1986). *Les constructions copulaires en Arabe* (Unpublished paper No.). University of Rabat.
Munro, P. (1977). From Existential to Copula: The Yuman BE. In C. N. (.). Li (Eds.), *Mechanisms of Syntactic Change* (pp. 445-490). Austin: University of Texas Press.
Napoli, D. J. (1973) *The Two Si's of Italian*. Ph.D. dissertation, Available from IULC, Bloomington, Indiana, Harvard University.
Napoli, D. J. (1976). At Least Two SI's. In V. Lo Cascio (Ed.), *Italian Linguistics* (pp. 123-148). Lisse: The Peter de Ridder Press.
Perlmutter, D. (1978). Impersonal Passives and the Unaccusative Hypothesis. In J. Jaeger e. a. (eds.), *Proceedings of the Fourth Annual Meeting of the Berkeley Linguistics Society*, . Univ. of California, Berkeley:
Popkema, J. (1984). Hy hat/is heechleraar west. In Århammer. e.a.(eds.), *Miscellania Frisica* (pp. 193-204). Assen: Van Gorcum.
Postal, P. M. (1969). On so-called "Pronouns" in English. In D. A. Reibel, S. A. Schane (eds.), *Modern Studies in English. Readings in Transformational Grammar* (pp. 201-224). New Jersey: Englewood Cliffs.
Postma, G. J. (1992c). On some binding differences between Dutch and English, ms. Leiden University, to appear in CUNY Forum.
Postma, G. J. (1993b). *Passive SE and Reflexive SE and the Theory of Person* (HIL Manuscripts No. 2, also published in: Actas da Associação Portuguesa de Liguística 1992). Leiden University.
Postma, G. J. (1993c). Oer de sintaktyske analize fan *Feitsma* and oare sibskip- en plaknammen. To appear in: Tydskrift foar Fryske Taalkunde 7 (4).

Postma, G. J. (forthcoming). *On the nature of the particle GE in West-Germanic participles.*
Prince, A. (1975) *The Phonology and Morphology of Tiberian Hebrew.* Doctoral dissertation, MIT.
Rapoport, T. (1985). Copular Constructions in Hebrew. In W. Eilfort e. a.(Eds.), *CLS 21* (pp. 354-370). Chicago: Chicago Linguistical Society.
Rapoport, T. (1987) *Copular, Nominal, and Small Clauses: A Study of Israeli Hebrew.* Ph.D. dissertation, MIT.
Reinhart, T. & E. Reuland (1991). Anaphors and Logophors: as Argument Structure Perspective. In J. Koster. &. E. Reuland (Eds.), *Long-Distance Anaphora* , Cambridge University Press.
Ritter, E. (1990). Two Functional Categories in Noun Phrases. In S. Rothstein. (ed.), *Perspectives on Phrase Structure: Heads and Licening* New York: Academic Press.
Ritter, E. (1991). Evidence for Number as a Nominal Head, Paper read at GLOW meeting, March 26, 1991, Leiden Univ.
Rompay, L. v. (1991). Some reflections on the use of post-predicative *hwa*: Classical Syriac. In K. Jongeling. e. a. (eds.), Studies in Hebrew and Aramaic Syntax (pp. 210-219). Leiden: Brill.
Rooij, J. d., & Meertens-Instituut., A. P. J. (1988). *Van hebben naar zijn: Het gebruik van hebben en zijn in de voltooide tijden (actief) van zijn, gaan, vergeten en verliezen in standaardtaal, ouder Nederlands en dialect.*
Schönfeld, M., Loey, A. van (1970). *Schönfeld's Historische Grammatica van het Nederlands* (8th edition ed.). Zutphen: Thieme.
Seler, E. (1960). *Gesammelte Abhandlungen zur Amerikanischen Sprach- und Altertumskunde - Sprachliches* (reprint of the version of 1887 ed.). Graz: Akademische Druck- u. Verlaganstalt.
Shields, K. (1978). Speculations concerning the I.E. root *es-. *Archivum Linguisticum*, IX(1), 73-78.
Shiguro, H. (1990). *Leibniz's philosophy of logic and language.* Cambridge, Cambridge University Press.
Spencer, A. (1991). *Morphological Theory.* Cambridge (UK): Basil Blackwell.
Stimm, H. (1973). *Medium und Reflexivkonstruktion im Surselvischen* (ISBN 3-7696-1453-4 ed.). Muenchen: Beck.
Szabolcsi, A. (1983). The Possessor that Ran Away from Home. *The Linguistic Review*, 3, 89-102.
Taverdet, G. (1971). Traits méridionaux et franco-provençaux dans les parlers bourguignons. *Revue de linguistique romane*, 35, 59-73.
Tozzer, A. M. (1977). *A Maya Grammar* (Unabridged and unaltered reproduction of the Peabody Museum Papers, IX, 1921 ed.). New York: Dover.
Vikner, S.& Sprouse, R. A. (1988). *HAVE/BE-selection as an A-chain membership requirement* (Working Papers in Scandiavian Syntax No. 38).
Vincent, N. (1988). Italian. In M. Harris. &. N. Vincent. (eds.), *The Romance Languages* (pp. 279-313). London: Routledge.
Wheeler (1990). Occitan. In M. Harris & Vincent, N. (Ed.), *The Romance Languages* (pp. 246-278). London: Routledge.
Wheeler, M. (1990). Catalan. In M. Harris & Vincent, N. (Ed.), *The Romance Languages* (pp. 170-208). London: Routledge.
Williams, E. (1981). Argument Structure and Morphology. *Linguistic review*, 1, 81-114.
Zribi-Hertz, A. (1989). Anaphor binding and the narrative point of view: English reflexive pronouns in sentence and discourse. *Language*, 65(4), 695-727.