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## AGREEMENT, SHELLS, AND FOCUS

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This article reconsiders the development and licensing of agreement as a syntactic projection and argues for a productive developmental relation between agreement and the category of focus. The authors suggest that focus projections are initially selected by a variety of functional heads with real semantic content. Over time however such selected focus frequently decays into a simple concord shell, and when this occurs, the lower half of the shell becomes a simple agreement projection parasitically licensed by the higher functional head, which does have a genuine semantic value.\*

INTRODUCTION. In current Chomskyan approaches to syntax, the status of AGREEMENT as a functional type projected in syntax has come to be rather controversial. On the one hand, Chomsky (1995) argues that agreement has no particular semantic content and therefore should not project as a functional head. On the other hand, there is much morphological and syntactic evidence in favor of agreement projections, and their existence is still widely assumed in much ongoing work (e.g. Brody 2000, Kayne 1994, Cinque 1999). Attempting to confront this general problem, we set out to establish the suggestions in 1, arguing for a productive developmental relation between agreement and the category of FOCUS:

- (1) a. Focus may actually occur in more than one syntactic position, contra assumptions implicit in much recent work such as Rizzi 1997.
- b. Focus may in fact be selected by a variety of functional heads with real semantic content.
- c. Over time, the focus interpretation of a selected focus projection may decay and become lost. The decay of a focus projection then gives rise to a two-part SHELL structure in which the lower half of the shell becomes simple agreement or concord and is parasitically licensed by the upper half of the shell, which does have a genuine semantic value.

The simple intuition we attempt to establish and make use of is the observation that the repetition effect found in the doubling of morphological material frequently results in natural emphasis, and may be directly triggered by the need to encode focus. Such focus effects may, however, later undergo weakening and eventually result in just simple agreement with two elements relating to a single semantic value. In such an instance, we suggest, agreement as a functional projection then comes to be licensed in a two-part shell structure parasitically, in virtue of the genuine semantic content of the higher shell head. The view of agreement developed here argues that agreement projections do not occur as extended projections of lexical categories, as commonly assumed, but are instead induced and legitimized in syntactic structure by higher functional heads. The article also deals with issues of discontinuous dependencies and the relation of focus to the universal base hypothesis.

The term AGREEMENT is used in its broadest sense to refer to all instances where properties of one linguistic element are separately coded in a second position in syntactic

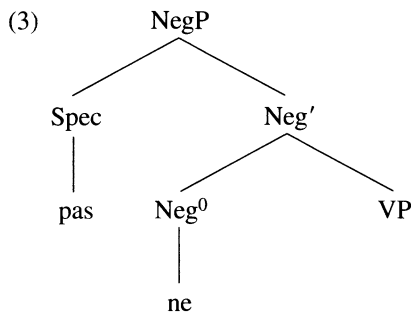
\* This work was originally presented at the nineteenth West Coast Conference on Formal Linguistics, held in UCLA in February 2000. For helpful suggestions and comments on earlier drafts, we would like to thank in particular Richard Kayne, Dominique Sportiche, Jean-Roger Vergnaud, Maria Luisa Zubizarreta, and also the referees and editors of *Language*.

structure. Elsewhere in Chomskyeen approaches to morpho-syntax there is sometimes a separation of agreement phenomena into instances where the agreement properties of a maximal projection are locally matched against those of a head in a spec-head configuration, i.e. SPEC-HEAD AGREEMENT, and other instances of agreement where elements with corresponding features do not occur in such a relation, often referred to with the term CONCORD. Here we do not assume that spec-head agreement and concord are necessarily different phenomena to be approached and treated in different ways, and there is correspondingly no significant distinction assumed in our use of the terms agreement and concord. We return to the issue of how spec-head and other agreement phenomena may be analyzed in essentially the same way toward the end of the article (§6).<sup>1</sup>

1. FRENCH NEGATIVE CONCORD. The first of the patterns we present as support for the suggestions in 1 is the occurrence of negative concord in French, where two discrete morphemes, *ne* and *pas*, signal a single instance of negation, as in 2.

- (2) Jean *ne* veut *pas* aller à l'école.  
 Jean NEG want NEG go to the school  
 'Jean doesn't want to go to school'.

When two elements are associated with a single semantic value in this way, the question arises as to how this is actually realized in syntactic structures. Pollock (1989) analyzes this instance of negative concord as in 3, with the element *pas* occurring in the specifier of a NegP headed by *ne*, hence a single projection of negation with two discrete overt parts.



Such an analysis of negation however faces the potentially serious criticism that the linear ordering of *pas* before *ne* as markers of sentential negation is never attested in the overt syntax.<sup>2</sup> Pollock suggests that the surface order of *ne* preceding *pas* is due

<sup>1</sup> In more recent minimalist approaches (Chomsky 1998, 1999), the spec-head relation is actually no longer seen as an instance of agreement, and the matching of features on maximal projections and heads is assumed to be (potentially) effected nonlocally, with movement of an element to a spec position being triggered by a rather different EPP requirement. The idea present in GB and earlier minimalism that agreement may perhaps be factored into two distinct types (spec-head and non-spec-head/concord-type agreement) is consequently no longer assumed in the more recent developments of minimalism.

<sup>2</sup> Certain constituent negation type cases, like (i) below, do occur with *pas* preceding *ne* in surface order. However, here *pas* has raised to its surface position attached to the subject *un homme* from a position below *ne*. Importantly, one does not find cases where *pas* precedes *ne* in an underived order that might reflect an underlying base-generated spec-head relation between *pas* and *ne*. Thanks to Richard Kayne for bringing such examples to our attention.

(i) [Pas un homme]<sub>k</sub> n'est venu t<sub>k</sub>.  
 NEG one man NEG is come  
 'Not one man came.'

to the fact that the Neg-head *ne* is a clitic and raises higher than *pas* when attached to a finite verb raising up to T<sup>0</sup>. However, even in nonfinite clauses where there is no cliticization of *ne* to the verb one still finds *ne* preceding *pas* as in 4. This may be taken to suggest that there should in fact be some other analysis relating *ne* to *pas* in the underlying syntax.

- (4) Ne pas y aller, c'est bête.  
 NEG NEG there go it-is stupid  
 'It's stupid not to go there.'

With this aim in mind, we turn now to a consideration of the historical development of negative concord in French and show how the well-documented diachronic patterns offer potentially valuable and insightful clues to the underlying synchronic syntax. The historical outline we now provide follows the observations of a wide range of researchers, including Gamillscheg (1957), Price (1971), Rickard (1983), and Schwegler (1988, 1990), all of whom agree on the basic pattern of development.

Originally in Old French, prior to the occurrence of any negative concord forms, sentential negation was signalled simply with the element *ne* in isolation, as in 5.

- (5) Il ne vout estre ses amis.  
 he NEG want be his friends  
 'He does not want to be friends.'

Subsequent to this, a number of secondary elements came to be used together with *ne*, for example *mie* 'crumb', *gote* 'drop' and *point* 'dot, point'. These all originated as nouns with clear descriptive content and are assumed to have been used as negative objects with different sets of semantically appropriate verbs. The element *pas* meaning 'a pace' or 'a step' was also among this object group and occurred naturally with verbs such as 'walk', 'run' as in 6.

- (6) N'irai un pas avant. (Chanson de Roland)  
 NEG-will.go a step forward  
 'I will not proceed.'

From a large number of such objects occurring with *ne*, Gamillscheg (1957) and others note that a small number of these generalized their use and began occurring with a wider range of verbs as nonliteral objects, so that by the sixteenth century only the four elements *pas*, *point*, *mie*, and *gote* continued to occur. Later still, in modern French, only *pas* and *point* are found. Essentially then, modern French *pas* over time lost its original purely literal meaning of 'step' and came to be used as a fully general reinforcement of negation with verbs that have no connection with walking or running or actions involving 'steps' as potentially genuine objects.

In this development, we would like to highlight three important facts. The first of these is listed as property one. Originally transitive verbs that occurred with *ne* and *pas/mie/point* etc. did not permit any additional direct object. However, during the course of the development, it became possible and normal for *pas/mie/point* to occur together with discrete overt direct objects in transitive sentences like 7 where the verb *creindre* 'to fear' embeds the object *sa menace* 'his threat'.

PROPERTY ONE

Sub V *pas/point/mie* (\*Object) → √Sub V *pas/point/mie* Object

- (7) Belin ne crienst point sa menace. (Brut)  
 Belin NEG fears POINT his threat  
 'Belin does not fear his threat.'

The second development was that *pas*, *point*, and *mie* underwent a significant repositioning and began to occur in a noncanonical object position PRECEDING the lexical verb in infinitive forms (8b), past participle forms (9), and where the lexical verb follows a modal (10), as indeed in modern French. Previously, *pas*, *point*, and *mie* occurred in a regular object position following the lexical verb in infinitive and past participle forms.

PROPERTY TWO

*pas/point/mie* etc. change position from canonical object position following nonfinite lexical verbs to a position preceding such forms:

Sub *ne* (Aux) V<sub>Fin</sub> *pas/point/mie* → Sub *ne* (Aux) *pas/point/mie* V<sub>Fin</sub>

(8) a. pour *ne* perdre *pas* → b. pour *ne* *pas* perdre  
           to    NEG lose   PAS           to    NEG PAS lose  
           ‘in order not to lose . . .’

(9) Je n’*ai*       *pas* mangé.  
       I   NEG have PAS eaten  
       ‘I haven’t eaten.’

(10) Je *ne*   *veux pas* manger.  
       I   NEG want PAS eat  
       ‘I don’t want to eat.’

Third, it is widely reported that the use of the second member of the negation pair was originally both optional, and specifically for adding emphasis to the negation, focusing the negation in a way similar to English examples like 11 where an object depicting a small amount is used to increase the emphatic value of the negation.

(11) I didn’t drink a DROP!

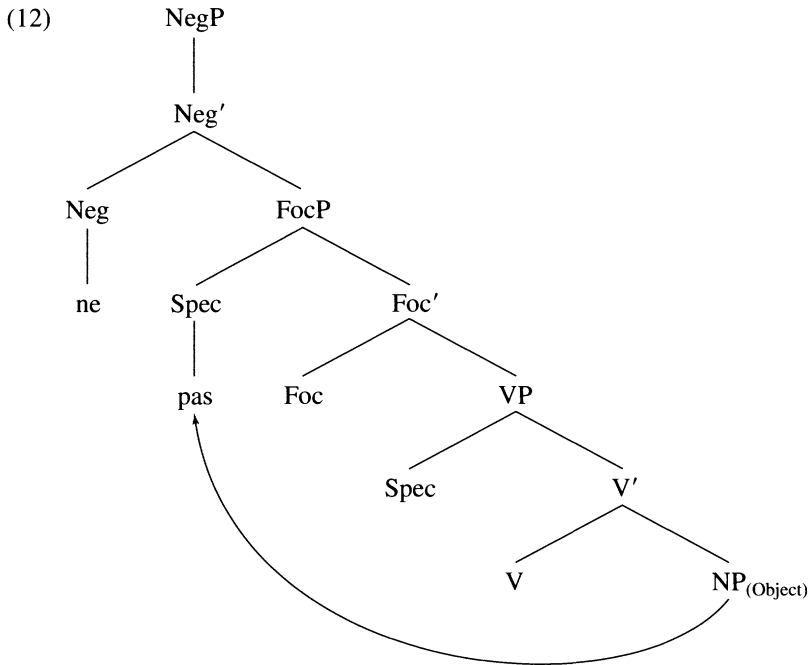
PROPERTY THREE

Use of *pas/point/mie* etc. was originally optional and specifically used to add strong emphasis on the negation.

We suggest that these characteristics all point toward a single analysis. Property one notes that while *pas* and the other secondary elements were originally genuine syntactic objects of the verbs they occurred with, later on other NPs occurred as objects together with *pas*, *point*, and *mie*, suggesting that the latter must have undergone some kind of reanalysis as purely functional morphemes base generated in a position distinct from that of the object. Furthermore, whereas *pas*, *point*, and *mie*, etc. originally used to inflect for number and/or case and occur with articles, as in 6, these properties were lost during the course of their development, again suggesting a reanalysis from the status of nominal object to that of purely functional morpheme. Property two notes that there was also an important positional change, supporting the assumption that *pas* etc. became base generated in a functional position different from that of the object. Finally, property three suggests that this functional position was associated with clear emphasis and focus on the negation in *ne*.

We therefore suggest the following two steps in the initial development of two-part negation structures in French: *ne* in Neg<sup>0</sup> in Old French began to select for an optional focus projection dominating its VP complement, and elements such as *pas* were originally base generated in object position and then raised to the specifier of the focus projection, as in 12, possibly in order to identify the functional projection in the sense of Koopman 1999 via associating it with some overt material.<sup>3</sup>

<sup>3</sup> Concerning the selection of a secondary morpheme to encode focus here, we believe that there are probably three mechanisms that languages commonly use to signal focus: (i) the addition of stress to an element, (ii) positional change and the movement of an element to a certain focus position, and (iii) the addition of morphological material either in the form of a simple focus marker added to an element or a



With the continued association of *pas*, *point*, and *mie* with focus and negation we suggest that these elements were later reanalyzed as occurring base generated DIRECTLY in the spec of the focus-projection. Such reanalysis would have then allowed for the object position to be occupied by a genuine nonemphatic NP and resulted in forms with overt objects in addition to *pas/point/mie*, as in 14, corresponding to the NegP in 13.

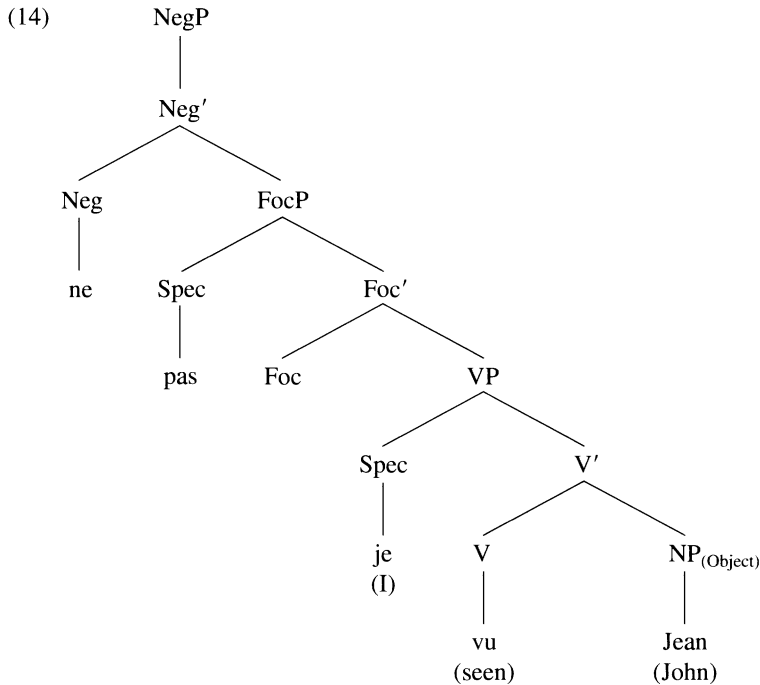
- (13) Je n'ai pas vu Jean.  
 I NEG have PAS seen Jean  
 'I haven't seen Jean.'

Such an analysis models the observation that elements like *pas* were originally just regular verbal objects and later came to function ambiguously both as verbal objects and as emphatic reinforcers of negation, repositioning themselves to the left of the nonfinite lexical verbs, as in 12. Later still, *pas* is argued to have undergone full reanalysis and grammaticalized in the higher position allowing for the object-of-verb position to be filled with new discrete objects.<sup>4</sup>

discrete secondary morpheme (as in French negation, and in other constructions discussed below). Languages might also make use of a combination of these mechanisms. With French negation, we believe that the third option and the addition of a secondary morpheme to signal focus may possibly have been selected because the first option—indicating focus via stress—might have been unavailable due to *ne* being phonetically reduced and unable to carry stress. Since the second option—movement to a focus position—is also frequently linked with the stressing of a focused element, it is possible that *ne* could also not undergo movement to any higher focus position to signal emphatic negation. Consequently, the third option—adding new material—may well have been the most natural way for this focus to be encoded with *ne*.

<sup>4</sup> The fact that *pas* undergoes repositioning and movement to a position distinct from the regular object position in the stage represented in 10 indicates that *pas* is involved in a genuine focus-movement strategy to a distinct focus position and *pas* does not just encode simple emphasis via stress, as is apparently the case in English 11.

Note also that while the pattern in French has been observed in many Romance languages, and varieties of north Italian, Catalan, and other varieties have all made use of emphatic reinforcers of negation that originated as clear verbal objects, an interesting variation of this same basic pattern has been noted by



Concerning the later development of the *ne-pas* negation structure, while *pas* clearly originated as a marker of emphatic negation, over time the focus and emphatic force resulting from its use with *ne* underwent gradual weakening and eventually was lost so that in modern French there is no longer any emphatic interpretation resulting from the occurrence of *pas*. The use of *pas* also regularized to the extent that it became obligatory in simple negative sentences such as 13. We return later in §5 to this further stage of development where a focus structure decays into an instance of simple concord and agreement. First, however, we consider three other patterns.

**2. CHINESE RELATIVE CLAUSES.** The first of these patterns concerns a problem in the analysis of relative clauses in Chinese, where one finds the linear sequence of relative clause followed by the relativizing element *de* and then the relativized NP, as in 15.

- (15) [wo mai]-de shu RC de N  
 I buy DE book  
 'the book I bought'

Historically, it is commonly assumed that the relativizing element *de* here is derived from an earlier element *zhi*, which had a parallel distribution with *de*. This element *zhi* is itself known to have also functioned as a clear demonstrative, as seen in 16.

Schwegler (1990) in Brazilian Portuguese and Chocó Spanish. In these varieties of Romance the morpheme used to signal that emphatic negation is not an object of the verb but a simple repetition of the original negative morpheme itself in a second lower position, as in (i) and (ii). Such patterns therefore show that morphemes other than objects may arguably be used to identify and activate the hypothesized negative-focus projection selected and induced by the  $Neg^0$  head.

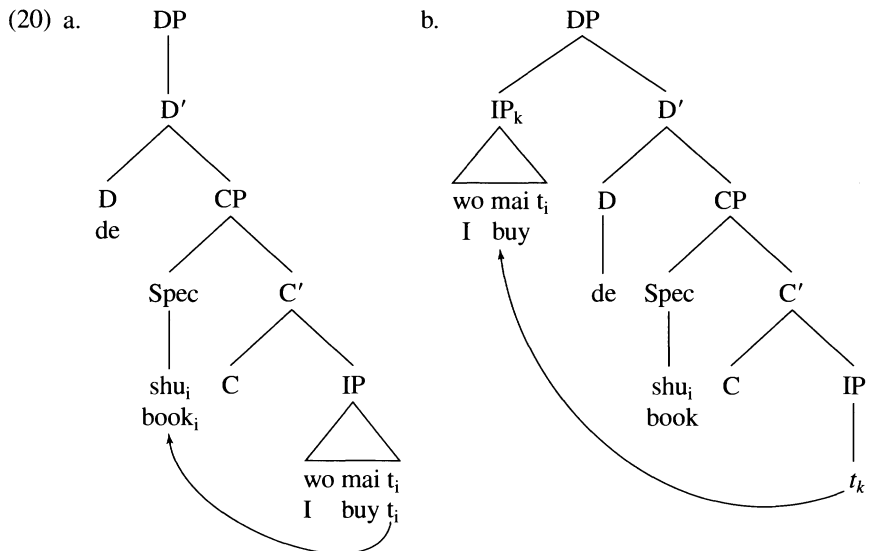
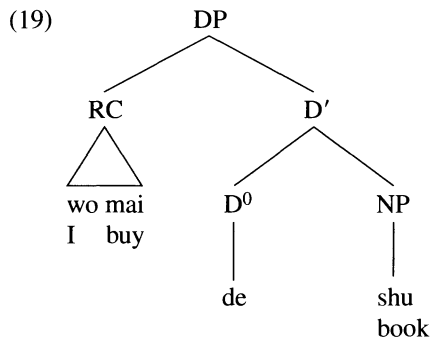
- (i) NÃO vou NÃO Brazilian Portuguese  
 NEG go NEG  
 'I'm NOT going!'
- (ii) Yo NO sé NO Chocó Spanish  
 I NEG know NEG  
 'I DON'T know!' (Montes Giraldo 1974)

- (16) zhi er chong you he zhi  
 these two worm again what know  
 ‘And what do these two worms know?’ (Zhuangzi 1.10)

Simpson (1997, 2001a) and Wu (2000) therefore suggest that *de* is a determiner-type element in  $D^0$  derived from the earlier demonstrative source and now largely bleached of its original definiteness value. This also fits well typologically with the observation that it is common for determiners or demonstratives to be involved in the formation of relative clauses, as noted in various examples such as 17 and 18 from Keenan 1985 and Williamson 1987.

- (17) Mary owiza wa kage ki he ophewathu (Lakhota, Williamson 1987)  
 Mary quilt a make the that 1SG.buy  
 ‘Mary bought that quilt I made.’
- (18) tanay awa: awu:w-pu-l ciyawx (Diegueno, Keenan 1985)  
 yesterday house 1SG.saw-the-in 1SG.will.sing  
 ‘I will sing in the house I saw yesterday.’

Taking *de* to be in  $D^0$ , this might suggest an analysis of Chinese relative clauses like 19, an adaptation of structures proposed in both Murasugi 2000 and Ouhalla 1999 for similar relative clause patterns in Japanese and Afroasiatic languages. Simpson (1997, 2001a) and Wu (2000) in fact both argue for the alternative analysis in 20, following ideas in Vergnaud 1985 and Kayne 1994.



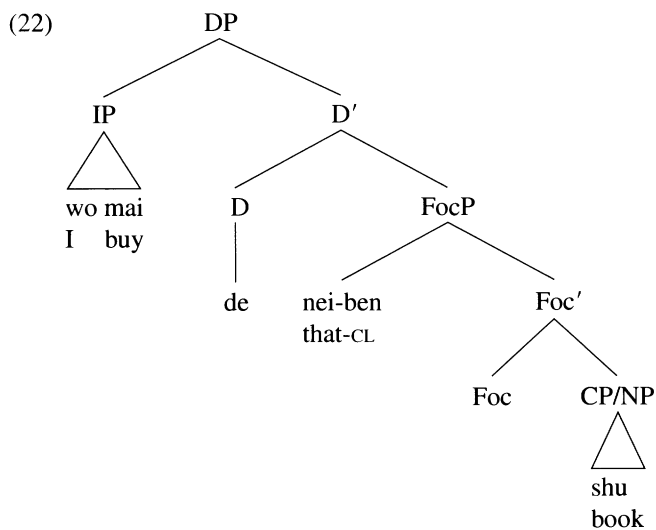


Either analysis however then encounters the problem that demonstratives may co-occur with *de* as in 21.

- (21) [wo mai]-de nei-ben shu RC de Dem NP  
 I buy DE that-CL book  
 'that book I bought'

Taking *de* to be in  $D^0$ , one is forced to assume that the demonstrative in such cases is therefore base generated in some lower position. In Simpson 1997 the precise identity of this position is largely ignored and consequently remains a problem as there clearly should be some explanation of how a demonstrative can come to be base generated in a lower DP-internal position.

The solution, we believe, is essentially the same as for French negation, and importantly it can be argued that there are both agreement and focus properties associated with such structures as in French. First, if *de* is indeed derived from a demonstrative and occurs in  $D^0$ , when it cooccurs with a lower demonstrative as in 21, we suggest that a form of DEFINITENESS AGREEMENT exists between the demonstrative and the determiner *de* in  $D^0$  (as indeed argued in Simpson 2001a). Second, the addition of the demonstrative also adds a clear emphatic value functioning to reinforce the definiteness of the construction in a way that can be compared with the use of negative reinforcers in Old French. Therefore we suggest that the use of demonstratives to reinforce a second element in  $D^0$  syntactically results from the  $D^0$  optionally selecting for a focus projection where the demonstrative is base generated, as in 22.<sup>5</sup>



Very similar phenomena are in fact also present in a number of other languages, and definiteness agreement and the parallel cooccurrence of determiners and demonstratives are found in Spanish, Hebrew, Greek, and Romanian, among other languages. As shown in 23 from Spanish, a demonstrative tolerates cooccurrence with a definite determiner but not an indefinite determiner and hence there is a requirement of definiteness agreement between the  $D^0$  and a lower demonstrative.

<sup>5</sup> The structure in 22 is essentially neutral with respect to whether the underlying structure is 19 or 20, hence the labelling of the constituent dominating *shu* 'book' as either CP or NP. Note also that we follow Giusti 1997 and assume that certain demonstrative units may be base generated in specifier positions.

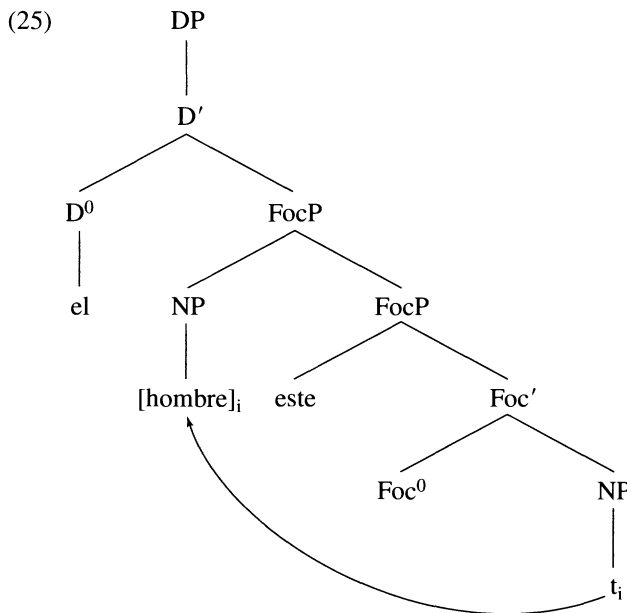
- (23) *el*/\**un* *hombre* *este*  
 the/a man this  
 'this man'

The optional occurrence of a demonstrative is also well noted to add a clear emphasis and focus in the DP, as pointed out in Silva-Villar & Gutiérrez-Rexach (2001). Consequently, assuming the determiner to be in D<sup>0</sup>, such structures raise the same problem as in Chinese concerning where it might be assumed that the demonstrative is base generated.

In the Chinese cases, the D<sup>0</sup> element *de* is regularly adjacent to the demonstrative and when the demonstrative occurs following the relative clause nothing intervenes between *de* and the demonstrative, as seen for example in 24.

- (24) \*[*wo mai*]-*de* [*xin*] *nei-ben* *shu*                      RC de Adj Dem NP  
 I buy DE new that-CL book

Consequently one can argue fairly straightforwardly that the demonstrative occurs in a projection immediately selected by the D<sup>0</sup>, the hypothesized focus projection. In Spanish there is much more freedom in placement of elements around a lower demonstrative and so underlying adjacency of the demonstrative and the determiner in D<sup>0</sup> is harder to argue for. Nevertheless we suggest that the D<sup>0</sup> in Spanish also selects for a focus phrase as in Chinese and that the underlying adjacency of D<sup>0</sup> and the focus phrase is later distorted by other applications of movement, for example raising of the NP containing the head-noun to left-adjoin to the FocP, as perhaps in 25. Such movement of the NP can be taken to be an instance of Zubizarreta's (1998) P-MOVEMENT, a defocusing movement triggered by the need to place a constituent-internal focused element (here the demonstrative) in a prosodically prominent constituent/domain final position.<sup>6</sup>



<sup>6</sup> Alternatively, if the morphologically simple demonstrative in Spanish is perhaps generated in the focus head, as suggested to us by Richard Kayne, the NP might be assumed to raise to the specifier of the focus phrase rather than adjoin to the maximal projection FocP.

Alternative suggestions that the demonstrative may be base generated lower down in the DP offer no explanation of what could cause a demonstrative to begin to occur in such a position. In our account, the focus phrase is, however, directly selected and induced by the  $D^0$  and there is also necessary definiteness agreement between the focused demonstrative and the determiner in  $D^0$ . Similar to the case of negative concord in French, in Spanish, and in Chinese one further finds the significant pattern that a higher and historically older head selects for a new lower focus as a reinforcement of the semantic value of the higher head, as noted in 26.

(26) OLDER selects NEW as reinforcement and emphasis of its semantic value

HEAD	FOCUS
<i>ne</i>	<i>pas</i>
<i>de</i>	<i>nei</i>
<i>el</i>	<i>este</i>

It is well known that historically determiners develop from demonstratives (see e.g. Vincent 1997) and so this is the pattern one would expect, with older determiner elements selecting for newer demonstratives in lower positions to the right of  $D^0$ .<sup>7</sup> As anticipated, one does not seem to find the reverse patterning and a neutral underived order of demonstrative-determiner.<sup>8</sup>

(27) \**este hombre el*  
 DEM man DET

**3. CHINESE ASPECT.** The next pattern we consider here relates to aspect. In Mandarin Chinese progressive aspect is commonly expressed with the element *zai*, as in 28.

(28) *ta zai kan-shu*  
 he ASP look book  
 'He is reading.'

However, in addition to *zai* one also finds an optional second element, which is commonly taken to be part of the expression of progressive aspect in sentence-final posi-

<sup>7</sup> The old vs. new distinction referred to here could perhaps in certain instances also be described with the opposing terms *DECAYED* vs. *NONDECAYED*. For example, it might be that the determiner and the demonstrative in a reinforcement pairing might be equally old in a language (as may be so in Spanish with both *el* and *este* derived from Latin demonstratives), but that the determiner has decayed from an earlier clear demonstrative function to become a simple determiner whereas the demonstrative has not undergone such decay. Thanks to a referee for general useful information here.

<sup>8</sup> A referee pointed out that the sequence of Demonstrative > Determiner > NP might seem to be possible in Hungarian, as in (i), asking how this unexpected order might be analyzed.

(i) *Az a könyv*  
 this the book

Here we suggest that perhaps the demonstrative may be moved to or base generated in the specifier of a projection higher than DP that has as its primary function specification of the deictic location of a DP (and is therefore not necessarily focus induced by  $D^0$  in the same way as the cases considered in the text). Potential support for such an assumption comes from the observation that demonstratives in Chinese can occur either below  $D^0$ , as shown in 22, or alternatively in a higher position preceding a relative clause, as in (ii). Given that the relative clause in 22/ii is assumed to be raised to SpecDP, the demonstrative-classifier unit in (ii) must be taken to occupy some higher specifier position. In connection with this alternative positioning of the demonstrative in 22/ii, Huang (1982) notes that a demonstrative in the initial position in Chinese results in a much stronger deictic interpretation than in the lower DP-internal position in 22, which suggests that the linearly initial specifier/projection dominating DP does indeed have a specifically deictic function.

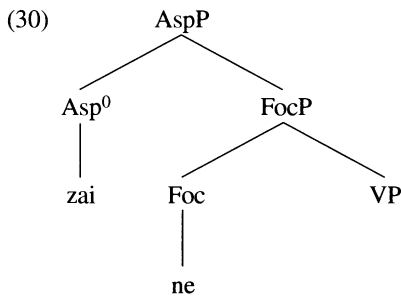
(ii) [*nei-ben* [<sub>DP</sub> [<sub>IP</sub> *wo mai t<sub>k</sub>*]<sub>m</sub>] *de* [<sub>CP</sub> *shu<sub>k</sub> t<sub>m</sub>*]]  
 that-CL I buy D book  
 'that book there which I bought'

tion—the morpheme *ne*.<sup>9</sup> This use of *ne* with *zai* consequently results in linear sequences with the VP occurring between *zai* and *ne*.

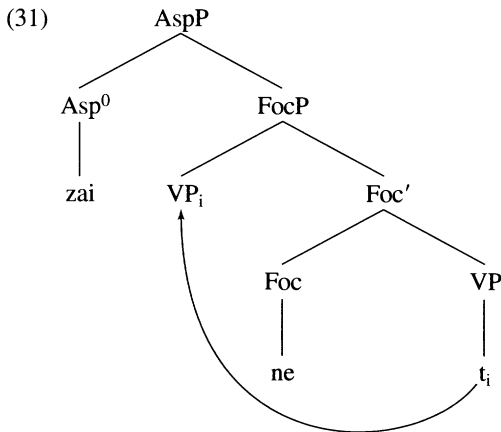
- (29) ta zai kan-shu ne  
 he ASP look book ASP  
 'He is reading.'

Again, such structures clearly present the problem of discontinuous dependencies, and here it appears that the single category of progressive aspect is encoded in two different locations in the clause.

Importantly, it can now be noted that, similar to *pas* in earlier forms of French and the use of demonstratives with determiners, the second element *ne* in progressive aspect sentences in Chinese is used to specifically introduce a clear emphasis and focus into the construction it occurs in. With *ne*, this results in focus on the aspectual interpretation of the construction. Consequently, once again one finds that a doubling of morphological information and the cooccurrence of two morphemes associated with a single basic semantic value—progressive aspect—results in and is used to encode a particularly emphatic interpretation of that semantic value. Therefore as with French *ne*. . . *pas* and the doubling of determiners with demonstratives we would like to suggest a similar conclusion: the higher morpheme *zai* occurs in an aspectual head and optionally selects for a focus phrase headed by the emphatic head *ne* above the VP as in the underlying structure in 30.



The attested surface order, we suggest, may result from movement of the VP complement of *ne* to the empty specifier position of the focus phrase, as in 31.



<sup>9</sup> Note that there is another sentence-final particle pronounced *ne* in Chinese, occurring optionally in WH-questions. Since this element is in complementary distribution with the yes/no question particle *ma*, we assume that it is a C<sup>0</sup> head specified as +WH interrogative and therefore a different element from aspectual *ne*.

In support, we note that in the Taiwanese variety of Chinese there is good evidence from tone sandhi patterns that in certain instances heavy clausal/predicate complements do indeed raise to the left of particle-type functional heads that select them, as schematized in 32, representing the derivation in 33.

(32) PRT [IP ] → [IP ]<sub>i</sub> PRT t<sub>i</sub>

(33) Underlying form: [<sub>CP</sub> kong<sub>2</sub> [<sub>IP</sub> A<sub>1</sub>-sin<sub>1</sub> m<sub>7</sub> lai<sub>5</sub>]]  
                                   PRT           A-sin not come

Surface output: [<sub>CP</sub> [<sub>IP</sub> A<sub>7</sub>-sin<sub>1</sub> m<sub>3</sub> lai<sub>5</sub>]<sub>i</sub>] kong<sub>1</sub> t<sub>i</sub>]  
                                   ‘A-Sin isn’t coming, I’m telling you!’

This movement is discussed in detail in Simpson & Wu 2002 and may have a number of explanations.<sup>10</sup> One possibility is that it is triggered by the encliticization needs of grammaticalized and phonologically reduced elements (hence the particle attracts its complement to the left to encliticize to). A second potential explanation is that certain particles are interpreted as instantiating the focus of a sentence; this may in turn cause a following complement to undergo a defocusing movement to the left of the particle, similar to cases of p-movement discussed in Zubizarreta 1998 and the suggestion for Spanish cases like 25 above. Both such explanations are available with aspectual *ne*, which is grammaticalized and phonologically reduced and also the clear focus of sentences it occurs in. We would therefore like to assume that the VP in sentences with *ne* is indeed raised and defocused, as in 31, and that the interpretation of focused progressive aspect results from the combination of two projections in an instance of aspectual concord very similar to the cases of definiteness agreement and negative concord already considered.

**4. MODALS AND FOCUS—THE CASE OF THAI *dai*.** A final relevant example we would like to offer here is the case of a modal pattern in Thai and certain other Southeast Asian languages discussed in depth in Simpson 2001b. Thai, Cambodian, and Vietnamese are all highly regular S-Aux-V-O languages with one striking exception. In all these languages one finds that a modal with the interpretation ‘can/be able to’ occurs in predicate-final position, frequently as in 35, schematized in 34a, or alternatively, following the verb and preceding the object as in 36, schematized in 34b.

(34) a. Subject V Object Aux<sub>[CAN]</sub>

      b. Subject V Aux<sub>[CAN]</sub> Object

(35) khaw phuut phasaa Thai dai (Thai)

      he speak language Thai can

      ‘He can speak Thai.’

(36) khaw phuut dai laai phasaa (Thai)

      he speak can many language

      ‘He can speak many languages.’

<sup>10</sup> The claim in Simpson & Wu (2002) that the IP raises leftward from an underlying form where the particle precedes the IP in C<sup>0</sup> is justified by the following observations. The new particle *kong* is derived from the verb ‘to say’ and a two-clause structure in which *kong* would have preceded its IP complement, Taiwanese being SVO and dominantly head-initial. We therefore suggest that its odd surface S-final position results from a leftward movement of the IP as a two-clause structure has reduced into a monoclausal form and *kong* has grammaticalized in C<sup>0</sup> as a modal particle. Synchronically, the ongoing occurrence of tone sandhi in *kong* and lack of tone sandhi in the element *lai* preceding *kong* can be accounted for only if it is assumed that *kong* is noninitial in the sentence when tone sandhi applies to the sentence and *lai* itself is final, as tone sandhi otherwise never occurs in a sentence-final element and also would be expected to occur in the (surface) nonfinal element preceding *kong*. Such patterns are then argued to indicate that the IP-raising operation does indeed still take place in present-day Taiwanese.

Significantly the S-V-Aux-O (b) pattern occurs only when the object is strongly focused. We therefore argue that this modal introduces a focus projection into the structure and the derivation of examples like 36 involves two movements—focus movement of the object to the focus projection selected by the modal to its right, and VP defocusing, raising the VP remnant to a position preceding the modal as schematized linearly in 37.

- (37) a. S Aux [<sub>VP</sub> V Ob]                    underlying structure  
           ↓  
       b. S Aux [<sub>FocP</sub> Ob<sub>i</sub> [<sub>VP</sub> V t<sub>i</sub>]]        object-focusing  
           ↓  
       c. S [<sub>VP</sub> V t<sub>i</sub>]<sub>k</sub> Aux [<sub>FocP</sub> Ob<sub>i</sub> t<sub>k</sub>]    VP remnant movement

The VP-raising defocusing movement accounts for the very odd and exceptional position of this one auxiliary verb in predicate and sometimes sentence-final position, and the focus movement accounts for the positioning of a heavily focused object following the modal. Because there is otherwise no object shift available in Thai and the other languages with this pattern, it is basically only possible to account for the object positioning in 36 if one does assume movement to a specific focus position selected and induced by the modal. Many other empirical and diachronic arguments also support such an analysis, as noted in Simpson 2001b.

**5. FOCUS AND AGREEMENT.** Considering all the patterns observed here, one consistently finds that various functional categories can all be argued to induce a focus projection into the structure selecting the focus projection as their complement. This has been suggested as possible at least with the heads  $D^0$ ,  $Neg^0$ ,  $Asp^0$  and also  $Mood^0$ .<sup>11</sup> When the morpheme which overtly identifies the focus projection is semi-invariant as with French *pas*, Chinese and Spanish demonstratives, and Chinese aspectual *ne*, this also results in an instance of concord where two morphemes such as *ne* and *pas*, or *zai* and *ne* are associated with the instantiation of a single basic semantic value—negation, aspect, etc. It should further be noted that the morphemes used as emphatic reinforcements of negation, aspect, and definiteness considered here are not used as markers of focus in other constructions and that these elements are therefore each understood as signalling the focus of a particular semantic value—negation, progressive aspect, and so on. In this sense then they result in what can be called FOCUS CONCORD, an interpretation of focus associated with a particular head, and the association of two overt morphemes with a single semantic value when a focus is induced.

- (38) FOCUS CONCORD: The optional repetition of a property of a linguistic item X in a second locus Y for the express purpose of emphasizing this property of X.

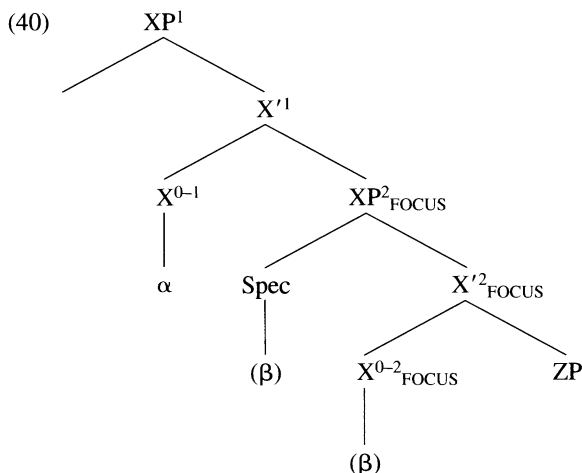
Significantly, focus concord may over time develop into SIMPLE CONCORD and lose all its original association with focus.

- (39) SIMPLE CONCORD: The obligatory, automatic repetition of a property of a linguistic item X in a second locus Y causing no additional semantic or pragmatic effects.

<sup>11</sup> We do not attempt to go into the question of how the scope of focus may be realized at LF, and whether any wide-scope interpretation of the focus induced by different clause-internal functional heads is encoded by further raising to a high scopal position at LF. Such a question, raised by a referee, is similar to the issue of whether clause-internal negation and tense undergo LF raising to encode their sentential scope or whether this wide-scope interpretation is achieved in some other way. As we have no relevant evidence bearing on the issue, we do not discuss it further here.

This development is particularly clear in the case of French negation, where the original focus interpretation resulting from the optional use of the emphatic reinforcer *pas* has now been lost, giving rise to simple negative concord between *ne* and *pas*. Such a change may indeed be quite natural, and it has often been noted that special syntactic forms originally used for a particular stylistic effect may over time lose their stylistic force and simply become regularized in the syntax with frequent use. In the case of the focus concord types highlighted here, we therefore suggest that over time these may commonly reduce into simple concord and the occurrence of simple agreement in syntax, with a doubling of morphemes associated with a single semantic value.<sup>12</sup>

Quite generally we suggest the following stages of development. In step one of the process a higher functional head X optionally selects for a new focus projection domi-



<sup>12</sup> In addition to the cases considered more closely in §§1–3 in the text, there are other simple cases where focus has been noted to be involved in the development of an agreement system, further suggesting that the focus-agreement connection argued for is indeed a valid one. Two cases we can briefly mention here are the development of possessor agreement in Mongolian (Comrie 1980), and the development of adjectival-like agreement in Thai (Hundius and Kölver 1983). In the former system, there is a synchronic doubling of a pronominal possessor as an affix-like element on the noun, either in a reduced or full form, illustrated in (i).

- (i) a. *mini möre-m*                      b. *mini möre-mini*  
       my horse-1SG/my                    my horse-my  
       ‘my horse’                            ‘my horse’

Of potential significance here is that early sequences of *möre-mini* [horse my] are described as having been associated with a clear emphasis and focus in contrast to forms like [my horse], and it is the former emphatic/focus form that has developed into the modern-day simple agreement form following the possessive pronoun.

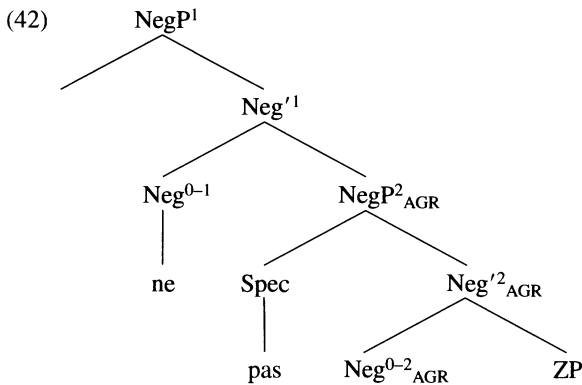
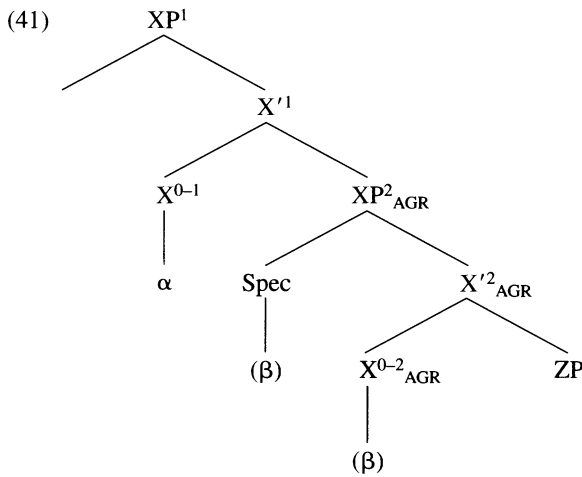
In the second case, the ongoing development of an agreement system in modern Thai, there is an optional doubling of the DP-internal classifier, which encodes properties of the head noun in DPs, and a classifier sometimes occurs not only in its regular position adjacent to demonstratives but also repeated on an adjective, as in (ii).

- (ii) *phuuying (khon)-suay khon-nii*  
       woman (CL)-pretty CL-this  
       ‘this pretty woman’

Here it is important to point out that the optional use of the classifier on the adjective brings with it a clear emphatic/focus value and is licensed only when the speaker wishes to add particular heavy emphasis on the adjective. The development of a new agreement system that clearly resembles the adjectival agreement systems of Romance and Germanic languages then again seems to be closely linked to the property of focus.

nating its regular complement ZP, and the specifier or the head of the new projection is instantiated by some overt morpheme  $\beta$  identifying this focus, as in 40.<sup>13</sup>

Later, in step two, continued use of the focus construction results in a loss of the emphatic interpretation and the morphological doubling becomes regularized as an instance of simple concord/agreement. This then evolves into a two-part SHELL structure consisting of two functional morphemes and two maximal projections associated with the single semantic and categorial value of X and no additional focus, and the element that instantiates the lower part of such a shell structure XP<sup>2</sup> selected by the higher head X<sup>0-1</sup> comes to simply agree with the value of X<sup>0-1</sup> as an instance of concord, as in 41.<sup>14</sup> Here X might correspond to Neg in formal modern French,  $\alpha$  to *ne* and  $\beta$  to *pas* in SpecNeg<sub>AGR</sub> as shown in 42.



<sup>13</sup> We assume that the optional occurrence of the focus phrase between the higher head X<sup>0</sup> and the regular complement of X<sup>0</sup> does not interfere with the selection relation between X<sup>0</sup> and its complement ZP, in the same way that the optional occurrence of a projection such as NegP between T<sup>0</sup> and its complement AspP/VP in various languages does not block the regular selection relation between such a T<sup>0</sup> and AspP/VP. An optional focus phrase like an optional NegP is in this sense assumed to be 'transparent' to the regular selection requirements imposed by a higher head.

<sup>14</sup> The term SHELL is first introduced in Larson 1988 to refer to a structure in which a head X<sup>0</sup> selects a complement XP with the same syntactic label as the selecting head X<sup>0</sup>, hence a VP may occur as the complement to a higher V<sup>0</sup> (Larson 1988:384). We use the term in an essentially parallel way to refer to a structure in which a lower XP is selected by a higher X<sup>0</sup> and the two XPs combined in such a structure share the same categorial label (i.e. the lower selected XP is basically just a repeated dependent double of



In this second stage, when the focus interpretation has been lost, giving rise to a simple agreement projection and the occurrence of Neg-, Aspect- and D-shells, we suggest that the agreement projection lower half of the shell is licensed in the shell parasitically by virtue of instantiating the same value as its selecting head X, which does have a genuine semantic interpretation. The necessary dependency of the lower shell extension on the higher semantically legitimate head/XP can be said to essentially have the result that the lower XP escapes being interpreted as an independent projection at LF and is instead inputted to LF as part of a single complex unit that does have a clear semantic value.<sup>15</sup>

Following this, the process may continue in two further steps. When the focus-concord morpheme loses its focus value and develops into a marker of simple concord, because of the semantic redundancy of the doubling, the original instantiation of the higher head X may semantically weaken further and develop into an expletive element. The result is that the historically newer instantiation of the lower part of the shell then comes to be interpreted as the primary encoding of the original semantic value of X. This is clearly seen in French negation structures where *pas* is commonly taken to be the element signalling negation and *ne* has been referred to as an expletive element, for example in works such as Cornillon 1998. It is also true in Chinese relative clauses, where the new demonstrative is a far stronger marker of definiteness than the older, bleached demonstrative-determiner *de*, which no longer seems to signal any definiteness and therefore can be considered expletive-like. Vergnaud & Zubizarreta 1992 also refers to determiners in Romance as having potential expletive functions, and one can suggest that the determiner in the Spanish cases where a demonstrative and a determiner cooccur is indeed expletive-like and a place-filler for the D-position, with the primary definiteness value being encoded in the demonstrative. Certainly if the D-position is not filled by the determiner, the demonstrative is forced to occupy this position rather than any lower position, in a way that resembles other expletive-associate pairs, as in 43.<sup>16</sup>

- (43) a. el hombre este  
           the man this  
           'this man'  
       b. \*hombre este  
       c. este hombre

the higher XP). The main difference between the conception of a two-part shell structure in this article and that in Larson 1988 is that in Larson's work such structures are assumed to be legitimized by theta-role assignment requirements, whereas we are suggesting that similar structures may also be licensed and induced by focus and its eventual decay into agreement.

<sup>15</sup> The structure in 42 suggested for formal modern French straightforwardly captures the general ordering property of *ne* and *pas* that *ne* always precedes *pas*, not only in tensed clauses but also in nonfinite clauses where *ne* clearly does not cliticize to the verb. This was noted to be a problem for Pollock's single projection analysis of *ne-pas* forms in 3 but is quite naturally accounted for in a dual Neg-shell approach to double negation.

<sup>16</sup> The essential process of decay into expletive elements described here is also observed in Greenberg 1978. He notes that demonstratives commonly decay into determiners and that in a wide range of African languages such determiners further decay into markers of simple agreement. Greenberg also points out that the decay of demonstratives into determiners and then into expletive-like agreement elements is commonly accompanied by the renewal of clear indicators of definiteness in the creation of new demonstratives. Consequently, expletive determiner-demonstrative pairings might seem to be rather widespread in language development.

- (i) demonstratives → determiners → expletive determiners/agreement morphemes

Finally, in step four of the developmental process, the higher expletive head may actually disappear and the overt morpheme in XP<sup>2</sup> comes to be the sole instantiation of the functional type associated with the XP shell. This is now occurring in modern colloquial French, where *ne* is disappearing from negation structures and it is common for the only indication of negation to be the presence of *pas*, as seen in 44.

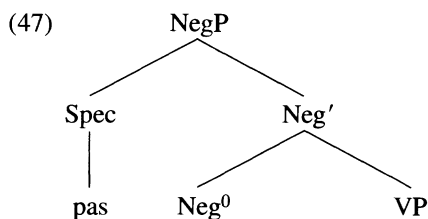
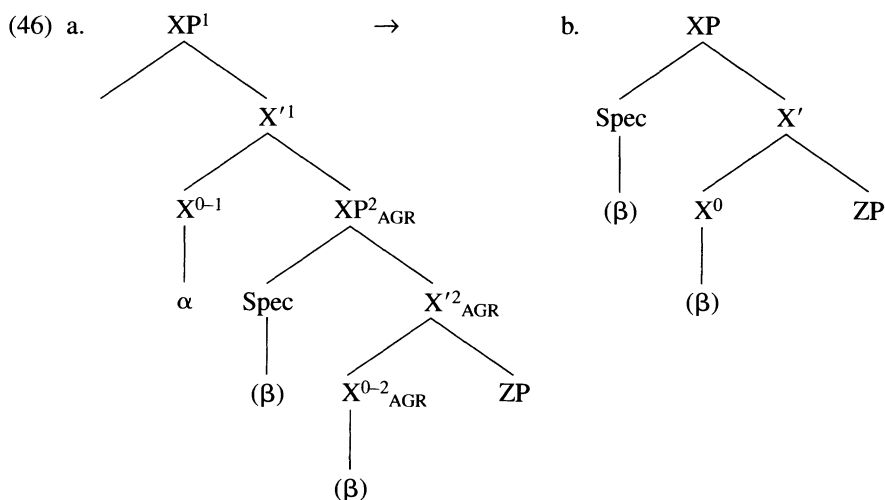
- (44) Je veux pas aller  
 I want NEG go  
 'I don't want to go.'

The disappearance of the higher head is also attested in the Chinese aspectual structures considered. Whereas progressive aspect is frequently signalled by the pair *zai . . . ne*, for many speakers it is now also possible for the use of the simple second element *ne* to indicate progressive aspect.

- (45) ta kan shu ne  
 he look book ASP  
 'He is reading.'

And in Spanish, if an overt definite determiner does not occur in D<sup>0</sup>, it is also clearly possible for a demonstrative to occur in this position as in 43c above.

We now suggest that without this overt morphological evidence for the higher head, the shell structure significantly becomes reanalyzed as a single collapsed functional projection, and the XP shell reduces to a new simplex functional projection XP, phonologically identified by the newer element β from the lower half of the shell encoding the original semantic value of X. Ex. 46a consequently simplifies to 46b, and 47 represents modern colloquial French where *pas* is commonly the only overt instantiation of negation.



Step four therefore brings the cycle full circle and results in a return to the state in which a single overt morpheme instantiates a single functional projection. Critically, however, a change has occurred in the physical instantiation of the projection as a newer element has come to be sequentially reinterpreted as representing the original semantic value of the projection, and the process of change has involved intermediate stages in which first focus concord and then semantically redundant simple concord are developed.

Note finally, that the reduction of the shell structure into a single XP may arguably also result where both overt elements collapse into a single new form. In Latin, for example (see Schwegler 1990), the negative head *ne* was originally frequently reinforced by emphatic doubling with the secondary element *oenum* (lit. 'one (thing)') as in 48a. Later, *ne* and *oenum* collapsed into the newer simplex form *non* (48b).

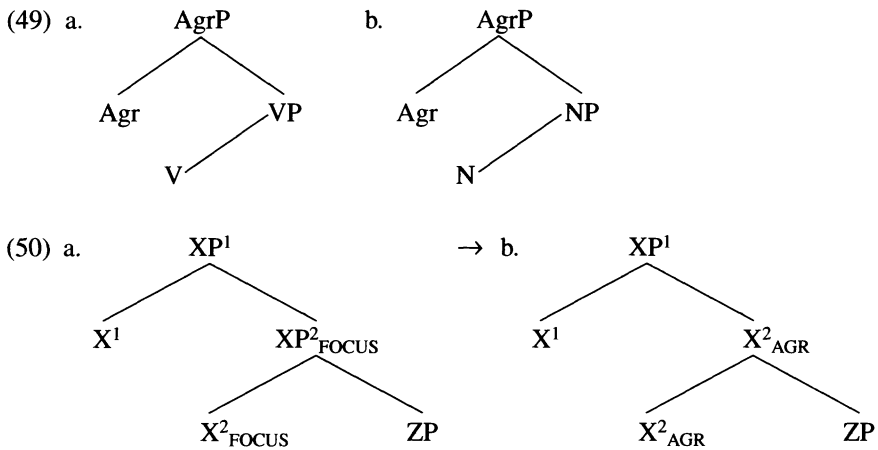
- (48) a. *ne oenum dico*  
           NEG one   say.1SG  
           'I didn't say one [thing]!'
- b. *ne oenum* → *non*

Following this, Schwegler (1990:153) reports that *non* also came to select for its own new emphatic reinforcers of negation and so the cycle continued on through a second parallel sequence.

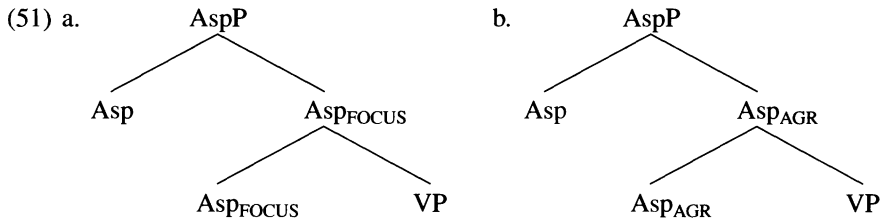
Viewed as a whole, the entire cyclic process of change allows one to make natural sense of how certain agreement phenomena may actually arise and be syntactically licensed, with focus structures selected by functional heads reducing into dependent concord projections, and the doubling of morphology naturally used to signal focus later becoming simple agreement. It is important to note that our proposals do not attempt to eliminate agreement as being potentially present in syntactic structure. Instead we suggest a slightly different perception of agreement projections in two basic ways. First, we argued that such projections are not located randomly in the clause but are instead induced by specific functional heads with genuine semantic content. Second, we suggested that the necessary dependency of an agreement-type projection on a higher selecting head effectively licenses this in the structure as part of a single complex shell projection having a single semantic value.

Such suggestions now raise further important questions about the process argued for. In §6 we therefore consider certain consequences of the view of agreement which has been developed.

**6. CONSEQUENCES AND FURTHER ISSUES.** The first point to highlight here is that the structural view of agreement suggested here is rather different from more standard characterizations of agreement and is, in fact, opposite to common assumptions in a rather clear way. Elsewhere it is regularly assumed that agreement projections are parts of structure projected by other lower LEXICAL projections. Lexical projections are therefore taken to structurally induce higher agreement projections from below, as for example in 49. However, we propose here that agreement projections are essentially induced from above due to the original SELECTION of a focus projection by a higher FUNCTIONAL head as in 50a. When the original focus interpretation undergoes decay, an agreement projection is then effectively licensed and induced by the higher functional head in the shell, as in 50b.



The present approach to agreement consequently differs significantly from more standard views in assuming that agreement projections may be induced in syntactic structure by higher functional heads rather than lower lexical projections. In such a view, the apparent occurrence of an agreement projection above a lexical projection is essentially just a by-product of the way the original focus projection is selected. For example, if the selecting functional head is an aspectual head that otherwise directly selects a lexical VP complement, when a focus projection is induced between the Asp<sup>0</sup> and the VP, as in 51a, and decays into simple agreement, the result will be that an agreement-type projection will appear to occur induced above the VP. In fact, if our proposals are correct, it is the higher functional head that is responsible for the location and occurrence of the agreement-type projection and not the lower lexical projection.



We suggest that this may actually be a more natural way to think about how new projections may be induced into structure and that whereas selection by a head is a clear and well-established syntactic relation, it may be more difficult to characterize and understand the syntactic relation that would permit a VP to induce and project an agreement projection in a position dominating it, that is, the VP cannot be suggested to select for the AgrP in any syntactic or regularly structural way. In standard approaches, one either has to admit the occurrence of agreement projections as simple theoretical primitives in syntactic structure, being automatically projected above lexical projections, or assume the converse, that it is agreement heads that select for lexical projections. The latter view faces the criticism that a head with no real semantic content is licensed to occur in structure and select a lexical complement (in contrast with the present proposal where a lower lexical complement is essentially selected by the whole complex shell which the agreement projection is part of and which does have a genuine

semantic value). Such a view is also unable to account for how agreement systems seem to regularly develop and then later disappear; if an agreement projection comes into existence in a structure where agreement previously did not occur, it is not easy to understand how this could happen if the critical syntactic relation is that the agreement head itself selects the lower lexical projection. The alternative view—that agreement projections are simple primitives associated with every lexical projection—is also open to certain criticism and the objection that it is not so empirically obvious that all lexical projections necessarily do project agreement phrases. Quite possibly, if there is no overt material ever present to identify such hypothetical projections, they may arguably not in fact be present in the syntactic structure.

A second important general question is whether and how the account developed here might be extended to other common agreement phenomena, such as that between subject DPs and verbs, and adjectival agreement within DPs. Related to this is the issue of whether all apparent agreement phenomena are in fact uniform, and whether spec-head agreement between the components of a single projection really is of the same type as the agreement found between elements located in two different adjacent projections, such as the case agreement that may obtain between a determiner and a following adjective in Germanic-type languages. Third, there is the issue of whether AFFIXAL agreement really is the same as the concord found with freestanding independent morphemes. In this article we have concentrated on agreement between relatively free morphemes rather than affixes, because the former are generally historically younger and it is therefore easier to uncover how and why they may have come into existence as agreement morphemes. Consequently, there are many important questions still to be answered about the general phenomenon of agreement. Nevertheless, we confidently believe that a consideration of the developmental cycle argued for here may provide a useful new way of thinking about these old problems and may also lead to rather different and potentially interesting answers. We show below that this is indeed the case with SUBJECT-VERB AGREEMENT phenomena and that a reconsideration of subject-verb agreement from the viewpoint suggested here results in an analysis that interestingly converges on recent ideas about the syntax of clitics proposed in Sportiche 1995. The brief reconsideration of verbal agreement furthermore shows in a positive way that it does seem possible to extend the basic approach to other more common agreement patterns and also to the occurrence of affixal agreement, two of the questions raised immediately above.

It is quite commonly assumed in the literature that subject agreement morphology develops from the reanalysis of subject pronouns (see e.g. Bresnan & Mchombo 1987, Givón 1976, Hopper & Traugott 1993), and we also make this fairly basic assumption. The more important question perhaps is exactly how this reanalysis takes place and what the reanalysis might indicate about the underlying synchronic structure of subject agreement. A frequently referred to view of the reanalysis process is that found in Givón 1976. Givón suggests that subject agreement results from the reanalysis of TOPIC-SHIFT structures (left dislocation). As schematized in 51 (from Givón 1976:154), it is suggested that frequent use of left dislocation topic-shift forms results in an original subject pronoun being reanalyzed as a subject agreement prefix and a topic NP being reanalyzed as a new subject (52 is an abstract representation for any language where this reanalysis takes place).

(52) Topic Shift ('marked')				Neutral (reanalyzed)
The man,	he	came	→	The man he-came
Topic	Pronoun	Verb		Subject Agr-Verb

Though initially quite plausible, such a hypothesis of the development of subject agreement leaves one with two simple problems. The first is the original theory-internal problem that if the agreement morphology on the verb has to be licensed by a higher agreement projection, the analysis here brings us no closer to understanding exactly how such hypothetical agreement projections might be able to occur and be licensed in syntactic structure. The second problem is the more general theory-neutral difficulty that the reanalysis process in 51 will clearly not account for the rather common occurrence of subject agreement as SUFFIXES rather than prefixes, and languages where subjects neutrally precede verbs are predicted to uniformly develop prefixal agreement rather than suffixal forms. Since there are in fact a large number of  $S > V$  languages with suffixal agreement, this obviously is a nontrivial problem, as Givón himself concedes. For these reasons, we would therefore like to explore how the approach to agreement suggested above might possibly lead to different insights into the reanalysis of subject pronouns as agreement markers.

If the development of subject agreement were indeed to follow the same pattern argued for in the other cases of agreement examined here, one would expect that the process would involve some older functional head coming to select for a new focus projection instantiated by an element in concord with it. Assuming that subject agreement does in fact result from the reanalysis of subject pronouns, one can conclude that the two elements critically involved in the developing concord relation are indeed the subject pronoun and some new NP introduced into the structure. Furthermore, given that it is the subject pronoun which is undergoing grammaticalization and eventual reanalysis as an agreement affix in such situations, it is fairly natural to suggest that the pronoun member of the pronoun/NP pair is essentially the older element in the concord situation. The pronoun is also the element that may phonologically change its shape over time as it attaches to the verb and may possibly decay and disappear with time. Consequently, if some kind of selection relation were to obtain in the development of subject agreement as elsewhere, there are reasons to think that it is the pronoun, as older member of the pair, which should be taken to select for a new reinforcement of itself in the form of a second full NP with matching phi-features.

Exploring such a scenario further, in the other cases considered here it has been argued that a higher functional head selects for and introduces the newer and lower focus-concord projection. We would like to suggest that two assumptions might now allow one to see the development of subject agreement as potentially very similar to the general pattern of development we have proposed. First, we suggest that the higher head  $v^0$  in a VP shell may be considered to be semifunctional in nature due to the regular functional role it is assumed to have in transitive clauses in encoding causation/causativity and assigning an agent/cause theta-role to the subject base generated in SpecvP (as suggested in Chomsky 1995). Our second proposal is that when subject pronouns come to grammaticalize as agreement-like morphemes, these elements may become reanalyzed as being base generated not as full maximal projections in SpecvP but as  $X^0$  elements in  $v^0$  itself. Such a reanalysis may reflect two changes. First, phonologically reduced monosyllabic elements that grammaticalize may quite naturally be reinterpreted as instantiating  $X^0$  head positions as words rather than  $X^{\text{MAX}}$  specifier-

like positions as full phrases, a process of reanalysis that can be called SPEC-HEAD REDUCTION.

- (53) SPEC-HEAD REDUCTION: A morphologically simplex element commonly positioned in the specifier position of a functional head  $X^0$  may over time be reanalyzed as instantiating  $X^0$  if there is otherwise no overt morpheme generated in  $X^0$ .<sup>17</sup>

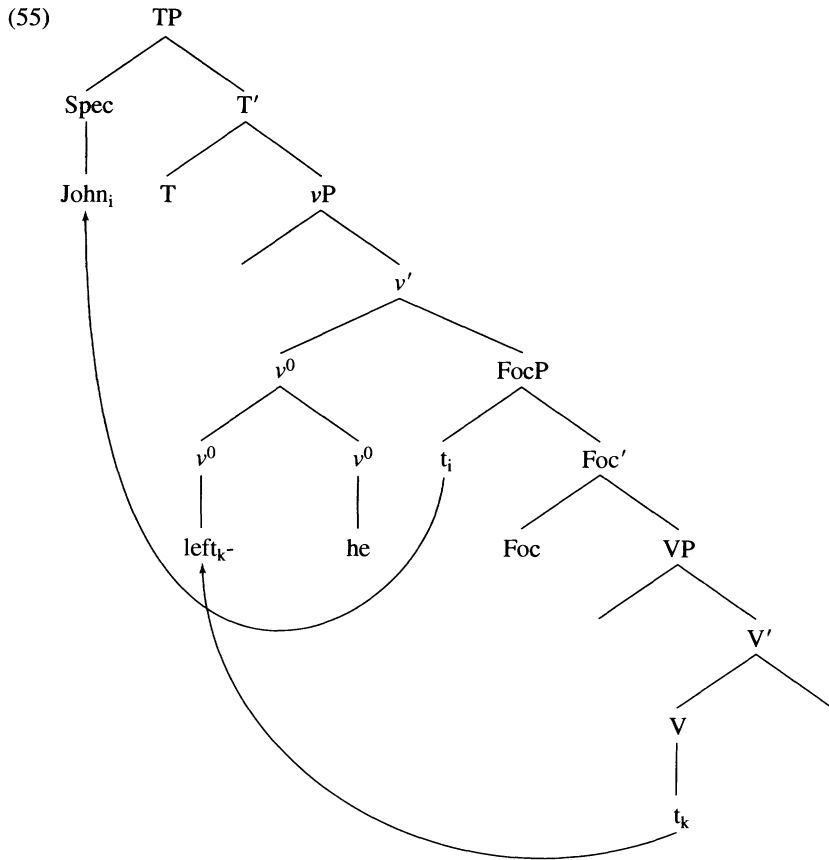
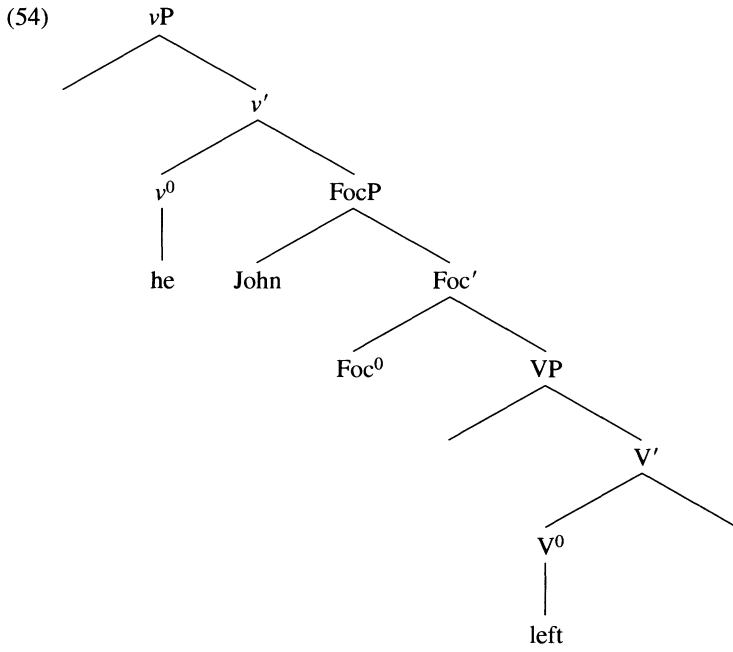
Second, if the  $v^0$  head essentially represents agentivity/causation, it can be suggested that this is indeed quite naturally encoded by a pronominal element that otherwise would be interpreted as an agent/cause.<sup>18</sup>

Such assumptions now allow us to suggest that the development of subject agreement begins with the reanalysis of subject pronouns as instantiations of  $v^0$  rather than Spec $v$ P, and that such elements grammaticalized in the semifunctional head  $v^0$  then select for emphatic reinforcement of their own particular value as in the other cases of focus concord examined earlier. Here the morphological doubling will require a second element interpreted as the agent/cause of the event with a phi-feature specification matching the 'pronoun' in  $v^0$ , hence in concord with the head  $v^0$ . Such a new element, introduced to reinforce the weakened pronoun, can now be suggested to be inserted in the specifier of a new emphatic/focus projection selected by  $v^0$ , as in 54. Following this we suggest that the new full NP inserted in the specifier of the focus projection raises up to the surface subject position, and the old grammaticalized pronoun as a weakened and phonologically dependent element attracts the verb in  $V^0$ .<sup>19</sup> The verb will then naturally left-adjoin to the element in  $v^0$  as in 55 with the result that a new agreement suffix element appears on the verb in the (abstract) surface sequence [John left-he].

<sup>17</sup> Spec-head reduction can be suggested to account for cases such as Spanish *que*, which has grammaticalized as an  $X^0$  word-level complementizer in  $C^0$  'that' from its other regular function as a full XP meaning 'what' in SpecCP, and for numerous cases in Chinese where (certain) adverbs show very clear evidence of being  $X^0$  heads rather than XPs in specifier positions (as argued convincingly in Cinque 1999). For example, as noted in Fu 1994, various adverbs in Chinese can occur either with the suffix *de* or without *de*, but only *de*-suffixed adverbs can be modified and expanded as XPs. Because adverbs without *de* cannot be expanded to XP-size, such morphologically simplex elements are assumed to be in head not spec positions. Soh (2001) also shows that tone sandhi patterns in Hokkien Chinese indicate very clearly that certain Hokkien adverbs are in head positions as they are phonologically phrased with a following verb in the way that is typical of heads preceding verbs and not preverbal XP specifiers or adjuncts. The assumption that adverbs originally base generated in specifier positions may undergo reanalysis as heads will also account for the creation of new tense forms/affixes that seem to have an adverbial origin, for example tenses in certain languages that refer restrictively to activities occurring during the day of the speech time can be assumed to be simply derived from a reanalysis of an adverb such as 'today' as a new tense head. There are consequently many cases that can be naturally accounted for by a process of spec-head reduction and it may indeed be a rather common form of grammaticalization, we suggest.

<sup>18</sup> See here also the very relevant case of dialects of Arabic where pronouns sometimes function as copulas and hence are inserted into and instantiate verb-like semifunctional heads. In Egyptian Arabic it is also possible for pronouns to function as question particles in  $C^0$ . Consequently, it is not particularly strange to suggest that pronouns might also be reanalyzed in the semifunctional head  $v^0$  with which they would otherwise have a relation as the element receiving the theta-role in Spec $v$ P.

<sup>19</sup> See Radford 1997 for many empirical arguments that the verb in English undergoes overt raising to  $v^0$ .





Consequently, it would seem that the basic approach to the development of agreement argued for earlier may indeed be hypothetically and perhaps usefully extended to other common cases of agreement after certain careful reflection, and such an approach allows for an account of the development of subject-verb agreement here that is both quite plausible and clearly accounts for the fact that this frequently develops as suffixal agreement.<sup>20</sup> In an interesting way the general proposals developed earlier necessarily lead one to assume a somewhat different view of the way agreement arises, and suggest that rather than a topic-shift left dislocation strategy, agreement may actually be a focus-related construction that results in the occurrence of verb-agreement. Such focus can be understood here to effectively correspond to the optional emphasis of pronominal elements that are undergoing gradual weakening and grammaticalization via the introduction of a secondary element with the same value/properties.<sup>21</sup> Later on, following the general developmental cycle proposed for other cases of agreement, one can suggest that the initial optionality of the secondary element commonly disappears along with the extra emphasis it adds into the construction and that the focus/emphatic structure develops into simple obligatory concord. Further on still, one would anticipate that the semantic redundancy of the simple agreement might cause the loss and disappearance of the higher, older element as in other cases, and that this in turn would result in a loss of the pronominal agreement markers—a situation that is, in fact, not uncommon crosslinguistically.<sup>22</sup> Ultimately then, the cyclic pattern of development posited earlier can be argued to allow rather naturally for a modelling of subject-verb agreement with the same basic properties assumed for other instances of concord.

It is also interesting to note that the analysis of subject-verb agreement that the basic approach most naturally leads to turns out to show strong similarities to ideas about clitic pronouns proposed in Sportiche 1995. Sportiche, in his influential paper, suggests that clitic pronouns are elements base generated in verb-related functional heads, hence as  $X^0$  word-level functional elements. Given that clitic pronouns commonly develop into verbal agreement morphemes (as noted for example in Spencer 1991:350), such a proposal is then clearly close to the present speculation that subject agreement results from the reanalysis of pronouns in the semifunctional head  $v^0$ . To the extent that our

<sup>20</sup> In addition to the derivation and structure proposed in 52 and 54, we would like to note that a rather different potential implementation of the basic ideas of this article to subject-verb agreement has been suggested to us by Dominique Sportiche. Maintaining the essential hypothesis and insight that agreement develops following the initial selection and decay of a focus projection, Sportiche points out that it might be possible to suggest that a pronominal element in a  $D^0$  position selects for a DP-internal focus projection as an emphatic reinforcement of the value of the pronoun in a way similar to cases where a determiner selects for a DP-internal FocP lexicalized by a demonstrative, hence a structure like [<sub>DP</sub> [<sub>D</sub> he [<sub>FocP</sub> John]]]. In such a view, which has a similarity to analyses of clitic-doubling and pronoun-antecedent pairings in Uriagereka 1995, and Kayne 2000, 2001, both the clitic pronoun and the surface subject would originate inside a single DP, with the latter raising out to a position higher in the clause for case/EPP reasons. An analysis along these lines may, however, face the difficulty that it would require assuming that the verb first raises to the clitic pronoun in SpecvP and then out of this left branch specifier to a higher head position in languages with overt V-to-T movement (e.g. French). Since this latter movement might be expected to violate locality conditions (i.e. the left branch condition), we here retain the analysis in the text, which has instead a more regular occurrence of head movement to the enclitic pronoun reanalyzed as  $v^0$ . In other cases, though, a DP-internal doubling of a pronoun originally driven by focus might turn out to be appropriate.

<sup>21</sup> Significantly it can be noted that the ongoing development of verbal agreement in certain Bantu languages has indeed frequently been described as being associated with the clear addition of emphasis, adding support for such a view of focus (Cole 1955, Segopolou 2000).

<sup>22</sup> Though if the agreement morphology functionally licenses and identifies a null *pro* subject, it clearly will not be redundant and therefore should not be under pressure to disappear.

account therefore forces conclusions that converge with ideas already motivated on other grounds, this can be taken as good, positive support for such a general approach to the modelling of agreement.

Finally here, on the topic of focus, an important ingredient and secondary claim of this article has been that focus as a functional projection is not fixed to a unique clausal location in the left periphery, as may be implied in recent work by Rizzi (1997) and the UNIVERSAL BASE HYPOTHESIS defended in Cinque 1999, but may in fact occur in a variety of positions, potentially selected by both clausal and nominal functional heads. This raises the question of whether the universal base hypothesis is weakened by the proposals and findings presented here. We believe the answer is no: focus may be considered in a way similar to the patterning of negation. Following interesting work on negation in dialects of Italian carried out by Zanuttini (1997), Cinque (1999) suggests that negation may actually be located in four discrete positions in the clause, though two of these locations are more common crosslinguistically than the other two. We believe that the same may be true of focus, and that while it may be very common crosslinguistically for languages to have a left-periphery type focus position, further investigation such as that presented here may reveal that there are other potential positions where focus may occur, in a way quite similar to negation. Just as Zanuttini's work on negation can consequently be interpreted as not necessarily weakening the universal base hypothesis, we also believe that the same may be true of the proposals concerning the occurrence of focus (and agreement) made here.

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