

# ADJECTIVAL AGREEMENT WITHIN DP WITHOUT FEATURE MOVEMENT

*Petra Sleeman*

## 0. Introduction

In this paper I propose an analysis of adjectival agreement within DP which departs from Chomsky's (1995) accounts of predicative agreement. On the basis of French, I argue that for prenominal adjectives and a considerable part of the postnominal adjectives analyses such as Chomsky's (1995: chapter 4) of adjectival agreement in copula constructions are not possible. For adjectives inside DP I propose two analyses: part of the postnominal adjectives, i.e. those that can be analyzed as a reduced relative clause, agree with the noun via feature checking after movement of the noun to a specifier position, as in Chomsky's analyses of adjectival agreement in copula constructions. For agreement of the postnominal adjectives that cannot be analyzed as reduced relative clauses and for the prenominal adjectives I will propose another analysis. It will be proposed that in that case agreement is the overt manifestation of the theta-identification relation between the noun and the adjective.

The paper is organized as follows. In section 1, I present Chomsky's (1995) analyses of adjectival agreement in copula constructions. In 2, it is shown that both of Chomsky's analyses can be extended to agreement between the noun and an attributive adjective in French if Kayne's analysis of adjectives within DP is adopted. In 3, Kayne's analysis is rejected for part of the adjectives within DP. I assume that attributive adjectives are simply generated in the functional projections dominated by DP. In 4, it is shown that agreement between the noun and an adjective in a functional projection cannot proceed as in Chomsky's analyses of adjectival agreement. In 5, I propose that agreement between the noun and an adjective in a functional projection is the consequence of the theta-identification relation between these two. In 6, I extend this proposal to Germanic, and I make a difference between extended chain agreement and individual agreement relations. In 7, the properties are enumerated which distinguish attributive adjectives from predicative adjectives within DP. Finally, in 8, the results are summarized.

## 1. Chomsky (1995)

Chomsky (1995: chapter 4) proposes two different analyses of adjectival agreement in copula constructions, i.e. agreement between a DP and a predicative adjective. In the Minimalist Program, predicative adjectives bear –interpretable features such as number and gender, i.e. nominal features, which are checked in overt syntax. Checking takes place in a Spec-Head relation. In both of Chomsky's analyses, the –interpretable nominal features of the adjectival head are eliminated before LF by means of overt movement of the DP to a Spec-position. In the first analysis (Chomsky 1995:283), exemplified in (1), the predicative AP takes the adjective as its head and the noun as its subject. The AP is dominated by an Agr<sub>AP</sub>. The DP that moves to [Spec,IP] to check its Case-feature passes through [Spec,Agr<sub>AP</sub>]. The adjectival head moves to the head of [Agr<sub>AP</sub>], so that its –interpretable  $\bar{\psi}$ -features are checked and eliminated via the Spec-Head relation with DP in [Spec,Agr<sub>AP</sub>]:

(1) John<sub>i</sub> is Agr<sub>AP</sub>[ t<sub>i</sub> Agr<sub>A</sub>[intelligent<sub>j</sub>[AP[t<sub>i</sub> t<sub>j</sub>]]]]

In footnote 51 of chapter 4, Chomsky notes that the overt raising of the adjective to Agr<sub>A</sub><sup>o</sup> is

problematic, because English, the language for which he proposes the analysis in (1), has weak Agr.

Since Chomsky argues at the end of chapter 4 that Agreement Phrases can be dispensed with, he also proposes an analysis of adjectival agreement in copula constructions without an Agreement Phrase on top of the predicative AP (Chomsky 1995:353). The AP contains two Spec-positions. DP originates in the inner Spec-position and moves to the outer Spec-position, where it enters into the checking domain of the adjective:

(2) John<sub>i</sub> is<sub>AP</sub> [ t<sub>i</sub> A' [ t<sub>i</sub> A' [intelligent]] ]

Chomsky proposes that the adjective is assigned the feature strong [nominal-] as it is drawn from the lexicon. DP raises to the outer Spec required by the strong feature, entering the checking domain of the adjective. In this way, the problem of the overt raising of the adjective in spite of the weakness of Agr in English is avoided.

Either of these analyses can be applied to adjectival agreement within DP if we adopt Kayne's (1994) analysis of adjectives within DP.

## 2. Kayne (1994)

For antisymmetry reasons, Kayne (1994) analyzes full relatives not as right-adjuncts, but as CPs selected by D<sup>o</sup>. The antecedent noun raises from within the clause to [Spec,CP], which has to be filled:

(3) DP<sub>[D<sup>o</sup>]</sub> [the<sub>CP</sub> [picture<sub>i</sub> C<sup>o</sup> [that<sub>IP</sub> [Bill saw t<sub>i</sub>]]]] ]

Kayne analyzes postnominal participial constituents in English and French as reduced relative clauses, which are also the complement of D<sup>o</sup>:

(4) DP [the<sub>CP</sub> [book<sub>i</sub> IP [t<sub>i</sub> sent t<sub>i</sub> to John]] ]

(5) DP [le<sub>CP</sub> [livre<sub>i</sub> IP [t<sub>i</sub> envoyé t<sub>i</sub> à Jean]] ]  
       'the book sent to John'

This analysis is also proposed for simple adjectives such as *yellow*, but in this case it is the predicate that moves to [Spec,CP]:

(6) DP [the<sub>CP</sub> [[yellow]<sub>i</sub> IP [book I<sup>o</sup> t<sub>i</sub>]] ]

A problem with the analysis in (6) is that it is not clear why it is the adjective that moves and not the noun as in (3)-(5). According to Kayne, in (4)-(5), the predicate, which is followed by a complement, cannot move to [Spec,CP] because of a head-final constraint like Emonds' (1976) Surface Recursion Restriction. In this case, it is the NP that moves to [Spec,-CP]. But in (6), nothing would in principle block the movement of the noun to [Spec,CP].

Simple adjectives in French are derived by Kayne like their English counterparts ((6)). To account for the postnominal position of most of the adjectives in French, Kayne assumes that in this language, there is subsequent overt noun movement to a functional head dominating CP (Valois 1991, Cinque 1994):

- (7) DP[le<sub>FP</sub>[livre<sub>i</sub> CP[jaune<sub>j</sub> t<sub>i</sub> t<sub>j</sub>]]]  
 ‘the yellow book’

In Kayne’s analysis, both participles as in (4) and (5) and simple adjectives as in (6) and (7) are the predicate of a reduced relative clause and take the noun as their specifier. In both cases agreement can then proceed as in Chomsky’s analyses of adjectival agreement in copula constructions. In the analysis with Agr<sub>AP</sub>, agreement between the noun and the adjective within DP would proceed as in (8), with subsequent movement of the noun to a functional projection dominating CP and movement of the adjective to [Spec,CP]:

- (8) DP[CES CP[IP[I° Agr<sub>AP</sub>[filles<sub>i</sub> Agr<sub>A</sub>[intelligentes<sub>j</sub>[AP[t<sub>i</sub> t<sub>j</sub>]]]]]]]  
 ‘these intelligent girls’

- (9) DP[CES FP[filles<sub>i</sub> CP[Agr<sub>AP</sub>[ t<sub>i</sub> Agr<sub>A</sub>[intelligentes<sub>j</sub>[AP[t<sub>i</sub> t<sub>j</sub>]]]]]k IP[I° t<sub>k</sub>]]]  
 ‘these intelligent girls’

In the analysis without Agr<sub>AP</sub>, agreement would proceed as in (10), with subsequent movement of the noun and the adjective as in (11):

- (10) DP[CES CP[IP[I° AP[filles<sub>i</sub> A’[t<sub>i</sub> A’[intelligentes]]]]]]]  
 ‘these intelligent girls’

- (11) DP[CES FP[filles<sub>i</sub> CP[AP[ t<sub>i</sub> A’[t<sub>i</sub> A’[intelligentes]]]j IP[I° t<sub>j</sub>]]]]]  
 ‘these intelligent girls’

However, Sleeman & Verheugd (1998a,b) argue that Kayne’s analysis cannot be applied to all adjectives within DP.

### 3. Predicates and attributes

Sleeman & Verheugd (1998a,b) argue, contra Kayne, that simple adjectives within DP lack argument structure and can therefore not project a clausal structure. Sleeman & Verheugd simply follow Valois (1991), who claims that simple adjectives are generated within the functional projections of NP, as in (12), with the noun moving to a higher functional projection in French, as in (13):

- (12) DP[the yellow<sub>NP</sub>[book]]  
 (13) DP[le livre<sub>i</sub> jaune<sub>NP</sub>[t<sub>i</sub>]]

An argument for the idea that simple adjectives as in (13) have to be analyzed in another way than participial constituents in French, as in (5), is that they behave differently w.r.t. their combination with the demonstrative pronoun *celui* ‘the one’:

- (14) celui envoyé à Jean  
 ‘the one sent to John’  
 (15)\* celui jaune  
 ‘the yellow one’

Since the demonstrative pronoun can also be combined with a full relative clause, as in (16),

- (16) *celui qui se trouve sur la table*  
'the one which is on the table'

the contrast in grammaticality between (14) and (15) suggests that in (14) but not in (15) we are dealing with a reduced relative clause. The grammatical example (14) can be derived by moving *celui* to [Spec,CP], whereas the predicate stays in situ, as in (5).

As Sandfeld (1965) and Rothenberg (1985) show, not only full relative clauses and past participles combine with *celui*, but the following constituents as well:

*present participles*

- (17) *celui chantant une chanson*  
'the one singing a song'

*adjectives ending in -ble*

- (18) *ceux réutilisables (par les ouvriers)*  
'the ones that can be used again (by the workmen)'

*adjectives followed by a complement*

- (19) *celui content de son travail*  
'the one satisfied with his work'

*à + infinitive*

- (20) *celui à refaire*  
'the one that has to be done over'

Sadler & Arnold (1994) show that the corresponding constituents in English can or must be generated in postnominal position ((21)-(26)), unlike simple adjectives ((27)):

- (21) the book that I have bought  
(22) the jewels stolen  
(23) the man sitting on the sidelines  
(24) the rivers navigable  
(25) a man fond of his children  
(26) the key to open the door with

- (27)\* the book yellow

They can also follow the pronominal element *those* ((28)-(30)), whereas simple adjectives cannot ((31)):

- (28) those that I have bought  
(29) those stolen  
(30) those navigable

- (31)\* those yellow

Sleeman & Verheugd propose that all the constituents that combine with *celui* and *those*

and that follow the noun in English are clausal entities. They are relative clauses or reduced relative clauses (for a similar view, see Ronat 1974), which are assumed to be the projection of a head *plus* its arguments, one of which moves to [Spec,CP], in a raising analysis of relative clauses such as Kayne's. Since in reduced relatives the (pro)noun raised to [Spec,CP] originates as an argument, it is theta-marked by the predicate.

Simple adjectives within DP, which are generated in the functional projections of NP, do not have syntactic argument structure and cannot theta-mark the noun they modify. However, at the level of Lexical Conceptual Structure (LCS) one theta-role is associated with simple adjectives. Sleeman & Verheugd propose that this theta-role can be saturated in syntax by means of the mechanism of theta-identification (Higginbotham 1985): the theta-role of the adjective is identified directly by the noun or rather by the theta-role associated with the noun, without the projection of the adjective's theta-role as a syntactic argument. This is the difference between predication and attribution.

#### 4. Against a feature movement analysis of attributival agreement

I have proposed that besides full relative clauses there are two types of modifier within DP. One type is the postnominal modifier exemplified for French in (14) and (17)-(20) which can be analyzed as a reduced relative clause. Because of the clausal analysis of this modifier, agreement between the noun and the modifier can proceed as in either of Chomsky's proposals for adjectival agreement in copula constructions:

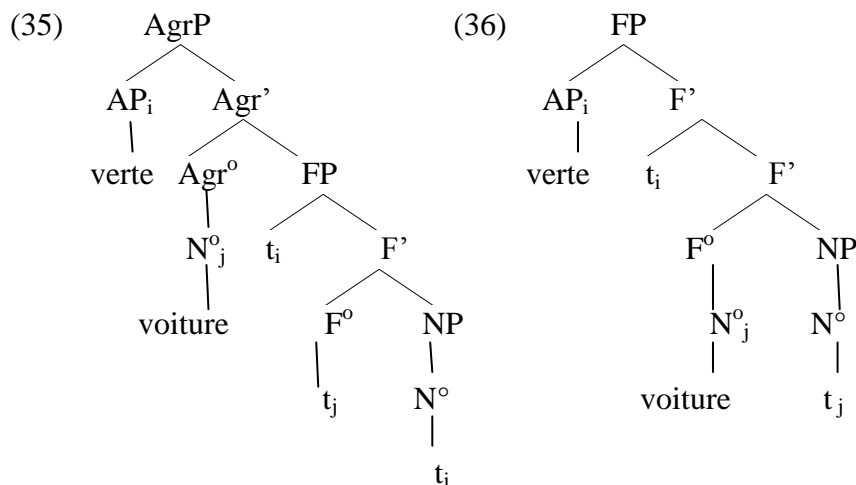
(32)  $DP[la_{CP}[femme_i IP[I^\circ_{Agr_A P} t_i_{Agr_A} [contente_j [AP[t_i t_j de son travail]]]]]]$

(33)  $DP[la_{CP}[femme_i IP[I^\circ_{AP} t_i A' [t_i A' [contente de son travail]]]]]]$

For the modifiers that cannot be analyzed as a reduced relative, but which I assume to be generated within the functional projections of NP, neither of Chomsky's analyses of adjectival agreement can be adopted. In both of Chomsky's proposals the DP moves to a Spec-position, on its way to [Spec,IP] to check its Case-feature. In this intervening Spec-position, DP is in a Spec-Head configuration with the adjective, so that the  $-$ interpretable  $\bar{\mu}$ -features of the adjective are checked against the  $+$ interpretable  $\bar{\mu}$ -features of the noun. However, if the adjective is a modifier of the noun within the functional projections of NP, I assume, following Cinque (1994), that the adjective is in a Spec-position, whereas the noun is moved as a head (see Ritter 1991 and others). Valois (1991) claims that in Romance the noun moves overtly to the head of the functional projection NumP:

(34)  $DP[la_{NumP}[voiture_i FP[verte_{NP} [t_i]]]]$   
'the green car'

On its way to the head of NumP, the noun passes through  $Agr_A^\circ$  ((35)) or  $F^\circ$  ((36)), where it enters into a Spec-Head relation with the (postnominal) adjective, which has moved to [Spec, $Agr_A P$ ] ((35)) or the outer Spec of FP ((36)), so that it seems that the  $-$ interpretable features of the postnominal adjective can be checked against the  $+$ interpretable features of the noun:



However, these configurations differ from the configurations in (1) and (2), because whereas in (1) and (2) it is DP that moves to Spec, in (35) and (36) it is AP. Since, in (1) and (2), DP originates in a theta-position, a nontrivial chain is formed, so that DP enters into the checking domain of Agr° or A°. In (35) and (36), however, AP does not originate in a theta-position, but in the Spec of a functional projection, so that it does not head a nontrivial chain and checking cannot take place.

For prenominal adjectives the situation is even worse. If we adopt Cinque's analysis of prenominal adjectives as being generated within the Spec of functional projections dominating NumP, the principle of Full Interpretation is violated, because the noun does not move further in overt syntax than this lower functional head, so that the noun and the prenominal adjective cannot even enter into a Spec-Head relation in overt syntax. This implies that the –interpretable features of the prenominal adjective, which I assume to be strong, just like the features of postnominal and predicative adjectives, cannot be checked before LF:

(37) DP[la<sub>FP</sub>[grande<sub>NumP</sub>[fille<sub>i</sub> NP[ t<sub>i</sub> ]]]]  
 'the tall girl'

Furthermore, determiners also agree with the noun. Since it is generally assumed that determiners are generated in DP (see Abney 1986) and since the noun does not move overtly to the head of DP in Romance, the –interpretable  $\bar{\mu}$ -features of the determiner, which I assume to be strong in Romance, see section 6, cannot be eliminated before LF, which results in a violation of the principle of Full Interpretation.

Because of these problems I will propose another analysis of agreement between the noun and an adjective in the functional projections of NP, which is not based on feature checking by means of noun movement.

## 5. Attributival agreement as a consequence of theta-identification

I have followed Higginbotham (1985) in assuming that modifiers within the functional projections of NP are related to the noun by means of theta-identification and theta-binding. This means that theta-roles in the LCS of the noun and the adjective are coindexed. I propose that agreement within DP is the overt expression of the establishment of the relation of theta-

identification or theta-binding. As a consequence of the theta-identification relation (or theta-binding for determiners),  $\downarrow$ -features can be checked, which results or rather can result in overt agreement:

*theta-identification*

(38)  $\langle \text{grande} + \downarrow\text{-features} \rangle^i \square \langle \text{fille} + \downarrow\text{-features} \rangle^i$

*theta-binding*

(39)  $\langle \text{la} + \downarrow\text{-features} \rangle^i \square \langle \text{fille} + \downarrow\text{-features} \rangle^i$

The idea that agreement and theta-identification or theta-binding are related has also been put forward by Kester (1996). However, whereas in my view attributival agreement is the consequence of theta-identification and theta-binding, according to Kester the theta-identification and theta-binding relations can be established as a consequence of agreement. Since she follows Chomsky (1995) in assuming that agreement expresses the checking of  $\downarrow$ -features in a Spec-Head configuration, her analysis encounters the problems mentioned in the previous section. In my analysis, in which attributival agreement is the consequence of theta-identification and theta-binding, and not the reverse, there are no problems with overt feature checking.

My claim that agreement within DP is the consequence of theta-identification and theta-binding and not of feature movement with pied-piping in Romance, is supported by agreement in secondary predication constructions. According to Legendre (1997), ‘long-distance’ agreement in (40) is rendered possible through the mediation of a coindexed PRO subject of the embedded clause, which transmits the features of its controller:

(40) Marie<sup>i</sup> donne ses conférences PRO<sup>i</sup> assise.  
 ‘Mary gives her talks sitting down.’

In my analysis of adjectival agreement inside DP, the adjective’s theta-role is not projected in syntax, but is satisfied by means of theta-identification, which is a relation between LCSs. Just as in Legendre’s analysis, however, agreement is the result of coindexation.

My analysis of agreement within DP without feature movement comes close to Chomsky’s (1998) operation Agree, which is dissociated from the operation Move. In Chomsky (1998), feature checking, i.e. Agree, can - but need not - take place without feature movement. Agree can take place between a feature F and an identical feature F’ in the domain of F. The domain of F is the complement of F. Since in Chomsky (1998) Agree seems to involve the checking relation between an X° and an YP within its complement, it cannot be extended to the agreement between an adjective within DP and an NP, if the adjective is in the Spec of a Functional Projection, as in Cinque’s (1994) analysis, which I have adopted. Future research will be needed to see if Agree also covers Spec-X(P) relations besides X°-YP relations. For the time being, I assume that feature checking between a noun and elements in its functional projections is the consequence of theta-identification and theta-binding.

Since the relations of theta-identification and theta-binding do not imply movement of the noun, agreement between the noun and the modifiers within the functional projections of the noun do not imply movement of the noun either, in my analysis. The –interpretable features of the modifiers and the determiners can be eliminated by means of the mechanism of theta-identification and theta-binding without noun movement being necessary. However, the position of postnominal adjectives seems to indicate that there is noun movement in Romance. According to Ritter (1991) and Valois (1991), the noun moves to the head of

NumP to check its number feature. In Germanic, the noun does not move to the head of NumP in overt syntax. This would explain why there are no postnominal attributive adjectives in the Germanic languages. However, since the number feature on the noun is a +interpretable feature, it would not have to be checked before LF, so that noun movement in Romance to NumP does not seem to be motivated. To account for the difference w.r.t. noun movement between Romance and Germanic, we have to make use of Chomsky's (1995) distinction between weak and strong features. Overt noun movement in Romance would be driven by a strong feature (see also Cinque 1994), so that it takes place in syntax although the feature is +interpretable, whereas a weak feature would postpone noun movement until LF in Germanic.

## 6. Romance versus Germanic

I have argued that in Romance agreement within DP is not the consequence of noun movement but of theta-identification and theta-binding. I extend this analysis to Germanic, although in Germanic adjectives agree in another way with the noun than in Romance.

Whereas in Romance both attributive and predicative adjectives agree with the noun ((41)-(42)), in Germanic (exemplified by Dutch) only attributive adjectives do so ((43)-(44)):

(41) *cette grande* fille  
'that tall girl'

(42) *Cette fille est grande*.  
'That girl is tall.'

(43) *dat grote* meisje  
'that tall girl'

(44) *Dat meisje is groot*.  
'That girl is tall.'

Furthermore, whereas in Romance there is agreement in gender and in number, there is another type of agreement in Germanic. Kester (1996) calls this type of agreement dummy agreement because it does not express number and gender as in Romance. In Dutch, for example, attributive adjectives can take the inflectional ending *-e*. The modifier takes this inflectional ending if the noun is either definite, or plural or non-neuter or a combination of these. In the default case, i.e. if the noun is indefinite, singular and neuter, the modifier does not take the *-e* ending (Menuzzi 1994, Kester 1996, Sleeman 1996, Vermandere 1998):

(45) *een mooi huis* (indef., sg., neuter)  
'a beautiful house'

(46) *lekker bier* (indef., sg., neuter)  
'good beer'

(47) *het mooie huis* (def., sg., neuter)  
'the beautiful house'

(48) *mooie huizen* (indef., pl., neuter)  
'beautiful houses'

(49) *een mooie auto* (indef., sg., masc.)  
'a beautiful car'

(50) *de mooie auto's* (def., pl., masc.)  
'the beautiful cars'



This means that in Germanic not only the  $\bar{\mu}$ -features of the noun (gender and number) but also the definiteness feature on the determiner play a role in the agreement of the attributive adjective.

Longobardi (1994) relates the difference in agreement between Romance and Germanic to the difference in noun movement. Overt noun movement in Romance creates Spec-Head configurations in Romance, so that attributive adjectives can agree in the same way with the noun as predicative adjectives do: in both cases there is strong agreement (see also Kester 1996). Since in Germanic there is no overt noun movement to the head of NumP, attributive adjectives agree in another way with the noun than predicative adjectives (weak agreement).

A first problem with this approach is that there are technical problems with a feature movement analysis (see section 4). A second problem for Longobardi's analysis is that prenominal adjectives and determiners also (strongly) agree with the noun in Romance, but cannot enter into a Spec-Head relation with the noun via overt noun movement (see also section 4). Cinque's (1994:106) conjecture is "that such Spec-Head agreement is checked, if not in overt syntax, at LF, under the not unreasonable assumption that the N raises to D at LF in those languages where it fails to do so in overt syntax". A problem with Cinque's solution, however, is that the  $\bar{\mu}$ -features on prenominal adjectives and determiners as well as on postnominal adjectives are –interpretable. Checking of –interpretable features at LF is only possible if they are weak, according to Chomsky (1995: chapter 3). However, it is not clear why features on prenominal adjectives would be weak, whereas features on postnominal adjectives are strong. Pollock (1993) relates feature strength to (paradigmatic) morphological richness. In Romance, agreement on prenominal adjectives and determiners and on postnominal adjectives generally is equally rich. This implies that if there is a relation with morphological richness the –interpretable  $\bar{\mu}$ -features of adjectives in Romance would always be strong and would have to be checked in overt syntax in all cases.

Although, in Longobardi's analysis, there is a relation between adjectival inflection and N-movement in Romance, in Germanic, exemplified by Dutch in (45)-(50), the adjectival inflection does not depend on N-movement. In my analysis of agreement, adjectival agreement and noun movement are not related. I therefore extend my analysis of agreement between an attributive adjective and the noun in Romance to Germanic, although agreement is not the same in these groups of languages. The data suggest that whereas in Romance agreement is the expression of individual theta-identification or theta-binding relations between the noun and the adjective or the noun and the determiner, in Germanic agreement is rather the expression of an extended chain between the noun and the coindexed elements in its functional projections, which are also in this case related by means of theta-identification and theta-binding. If the extended chain contains a feature that is not neuter, singular or indefinite, this is expressed by means of an inflectional marker on the adjectival modifier(s):

*Individual theta-identification and theta-binding relations in Romance*

- (51) la<sup>i</sup> grande<sup>j</sup> fille<sup>i,j,k</sup> blonde<sup>k</sup>  
 'the tall blond girl'

*Extended chain formation in Germanic*

- (52) het<sup>i</sup> grote<sup>i</sup> blonde<sup>i</sup> meisje<sup>i</sup>  
 'the tall blond girl'

Since no extended chain is formed in the case of predicative adjectives, there is never extended chain agreement in this case. Agreement between DP and a predicative adjective is an individual relation between the subject and the predicate. In Germanic it proceeds like in

Romance, with feature checking via a Spec-Head relation in Agr<sub>AP</sub>P (cf. (1)) or in AP (cf. (2)), but in Dutch ((53) and (55)) this kind of agreement is not overtly expressed, just as in English ((1)-(2)), whereas it generally is in Romance, exemplified by French ((54) and (56)):

(53) Deze auto's<sub>i</sub> zijn Agr<sub>AP</sub>P[ t<sub>i</sub> Agr<sub>A</sub>[mooi<sub>j</sub>[AP[t<sub>i</sub> t<sub>j</sub>]]]].  
 'These cars are beautiful'

(54) Ces filles<sub>i</sub> sont Agr<sub>AP</sub>P[ t<sub>i</sub> Agr<sub>A</sub>[intelligentes<sub>j</sub>[AP[t<sub>i</sub> t<sub>j</sub>]]]].  
 'These girls are intelligent'

(55) Deze auto's<sub>i</sub> zijn AP[ t<sub>i</sub> A'[ t<sub>i</sub> A'[mooi]]].  
 'These cars are beautiful'

(56) Ces filles<sub>i</sub> sont AP[ t<sub>i</sub> A'[ t<sub>i</sub> A'[intelligentes]]].  
 'These girls are intelligent'

In Romance, agreement is always the expression of an individual relation between the noun and the adjective, which is expressed by the same inflectional markers on attributive and predicative adjectives. The difference is that in the case of the attributive adjective agreement is not the result of noun movement whereas it is in the case of predicative adjectives, just as in Germanic.

I have made a distinction between predicative adjectives in copula constructions and predicative adjectives inside DP, which I have analyzed as reduced relative clauses (cf. Kayne 1994, Cinque 1994), see section 3. I have shown that in both types of predicative construction, agreement proceeds in the same way, viz. via DP-movement, which creates a Spec-Head configuration, so that feature checking can take place. In Romance, the agreement relation is overtly expressed by means of an inflectional marker on the adjective in both types of predicative construction (see (54), (56) and (32)-(33)). I have shown that in Germanic there is no overt agreement between a DP and a predicative adjective in copula constructions ((1)-(2), (53) and (55)). Predicative adjectives within DP do not overtly agree with the noun either. This is exemplified by Dutch:

(57) Hij had een buil zo groot als een ei.  
 'He had a bump as big as an egg.'

Just as in the copula construction, agreement between the noun and the predicative adjective within DP is the consequence of feature checking via DP-movement, which is not overtly expressed by means of an inflectional marker on the adjective in Dutch.

## 7. Attributive adjectives

In my analysis of agreement within DP, elements within the functional projections of NP, both in Romance and Germanic, agree with the noun because of the establishment of a theta-identification relation and not via feature movement accompanied by pied-piping as in Chomsky's analysis of adjectives in copula constructions. In my view, there is a sharp difference between attributive and predicative adjectives:

(58) *Attributive adjectives*

- in the Spec of functional projections of NP
- no projection of arguments
- theta-identification relation between theta-role in LCS of adjective and noun
- feature checking as a consequence of theta-identification and not of feature movement

(59) *Predicative adjectives*

- clausal predicates
- thematic argument is projected
- theta-mark DP
- feature checking in a Spec-Head configuration as a consequence of feature movement

This means that attributive adjectives differ from predicative adjectives, or to put it differently, that the functional system dominating NP is different from clausal systems such as the reduced relative clause or copula constructions. This conclusion is strengthened by several other studies on English (e.g. Stowell 1981, Sadler & Arnold 1994), in which prenominal adjectives, i.e. attributive adjectives, are analyzed in a different way than postnominal adjectives. But whereas in these studies a distinction is made between A and AP ((60)-(61)), in my view attributive adjectives are APs whereas predicative adjectives inside DP project into a CP ((62)-(63)), see section 3:

(60) NP[the<sub>N</sub> [<sub>A</sub> proud<sub>N</sub> [man]]]

(61) NP[the<sub>N'</sub> [man<sub>AP</sub> [proud of his country]]]

(62) DP[the<sub>FP</sub> [<sub>AP</sub> proud] NP[man]]

(63) DP[the<sub>CP</sub> [man<sub>i</sub> t<sub>i</sub> proud of his country]]

The properties enumerated in (58)-(59) follow from this distinction between AP and CP.

## 8. Conclusion

Although I have shown that Chomsky's analyses of agreement between a noun and an adjective in a copula construction can be extended to predicative adjectives within DP, for which I have adopted Kayne's reduced relative clause analysis, I have argued that agreement with elements in the functional projections of NP cannot proceed via noun movement, but is the consequence of theta-binding and theta-identification, which implies the coindexation of nouns and their modifiers and determiners. This means that –interpretable features can be eliminated in overt syntax in two different ways: either by means of feature movement (with pied-piping) or by means of coindexation.

## References

- Abney, Steven. 1986. *The English Noun Phrase in its Sentential Aspect*. Ph.D. dissertation, MIT.
- Chomsky, Noam. 1995. *The Minimalist Program*. Cambridge, Massachusetts: MIT Press.
- Chomsky, Noam. 1998. *Minimalist Inquiries: The Inquiries*. MIT Working Papers in Linguistics.
- Cinque, Guglielmo. 1994. "On the Evidence for Partial N-movement in the Romance DP". *Paths towards Universal Grammar. Studies in Honor of Richard S. Kayne*, ed. by G. Cinque et al., 85-110. Washington: Georgetown University Press.
- Emonds, Joseph. 1976. *A Transformational Approach in English Syntax*. New York: Academic Press.
- Higginbotham, James. 1985. "On Semantics". *Linguistic Inquiry* 16:4:547-593.
- Kayne, Richard. 1994. *The Antisymmetry of Syntax*. Cambridge, Massachusetts: MIT Press.
- Kester, Ellen-Petra. 1996. *The Nature of Adjectival Inflection*. Ph.D. dissertation, Utrecht University.
- Legendre, Geraldine. 1997. "Secondary Predication and Functional Projections in French". *Natural Language and Linguistic Theory* 15:43-87.
- Longobardi, Giuseppe. 1994. "Directional Parameters as the Product of Head Movement". *Glow Newsletter* 32:36-37.
- Menuzzi, Sergio. 1994. "Adjectival Positions inside DP". *Linguistics in the Netherlands*, ed. by R. Bok-Bennema & C. Cremers, 127-138. Amsterdam & Philadelphia, John Benjamins.
- Pollock, Jean-Yves. 1993. "Checking Theory and Bare Verbs". *Paths towards Universal Grammar. Studies in Honor of Richard S. Kayne*, ed. by G. Cinque et al., 293-310. Washington: Georgetown University Press.
- Ritter, Elisabeth. 1991. "Two Functional Categories in Noun Phrases: Evidence from Modern Hebrew". *Syntax and Semantics* 25, ed. by S. Rothstein, 37-62. San Diego: Academic Press.
- Ronat, Mitsou. 1974. *Echelles de Base et Mutations en Syntaxe Française*. M.A. thesis, Vincennes University, Paris.
- Rothenberg, Mira. 1985. "Le Pronom Démonstratif et ses Déterminants en Français". *Bulletin de la Société de Linguistique de Paris* 80:1:16-200.
- Sadler, Louisa & Douglas Arnold. 1994. "Prenominal Adjectives and the Phrasal/Lexical Distinction". *Linguistics* 30:187-226.
- Sandfeld, Kristian. 1965. *Syntaxe du Français Contemporain I: Les Pronoms*, new edition (first ed. 1928-1943). Paris: Honoré Champion.
- Sleeman, Petra. 1996. *Licensing Empty Nouns in French*. The Hague: Holland Academic Graphics.
- Sleeman, Petra & Els Verheugd. 1998a. "Licensing DP-internal Predication". *Romance Linguistics: Theoretical Perspectives*, ed. by A. Schwegler, B. Tranel & M. Uribe-Etxebarria, 271-283. Amsterdam & Philadelphia: John Benjamins.
- Sleeman, Petra & Els Verheugd. 1998b. "How Reduced are Reduced Relatives?". *Linguistics in the Netherlands*, ed. by R. van Bezooijen & R. Kager, 187-199. Amsterdam & Philadelphia: John Benjamins.
- Stowell, Tim. 1981. *Origins of Phrase Structure*. Ph.D. diss., MIT.
- Valois, Daniel. 1991. *The Internal Syntax of DP*. Ph.D. dissertation, UCLA.
- Vermandere, Dieter. 1998. "Projecting DP: a View from the (Dutch) Adjective". Preprint, Leuven University.