# D-raising and Asymmetric Agreement in French<sup>\*</sup>

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#### 1. French Definite Determiners in Indefinite Contexts

Following (Milner 1978), we can assume that what traditional grammars call partitive constructions and plural indefinite constructions, cf., (1) and (2) respectively:

- (1) J'ai mangé du pain. I have eaten of-the bread.
- (2) J'ai des crayons. I have of-the pencils.

underlie the same ingredients, as in the partitive configuration in (3):

(3)	$0_{\text{CUANT}} + \text{de} + \text{Det} + \text{N}$	
	le pain	(cf., (1))
	the bread	
	les crayons	(cf., (2))
	the pencils	

The two partitive constructions in (1) and (2) feature a definite determiner which does not force a presuppositional interpretation for the DP after de. That is, du pain and des crayons do not need to refer to a known amount of bread or to a known set of pencils. On the basis of this observation, the definite determiner appearing in (1) and (2) can be labeled as expletive. (Milner 1978), as well as (Jones 1996), relate the determiner appearing in the contexts in (1)-(2) to the one occurring in generic contexts, in French, as for instance in (4):

(4) Les lions sont méchants. the lions are mean.

This correlation, although may enlighten the availability of an expletive definite determiner in contexts such as the ones in (1) and (2), leaves a number of obscure points. For instance, in contexts similar to that in (2), such as the one in (5):

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(5) J'ai acheté beaucoup des livres. I have bought many of-the books.

the determiner *les* cannot receive a "generic" interpretation. (5) contrasts with (6) in the relevant interpretation:

(6) J'ai acheté beaucoup de livres. I have bought many of books.

The interpretation of (5) involves a known set of books, whereas that of (6) does not.

On the other hand, the meaning of sentences like that in (6), as well as that of similar DPs in related languages, for instance, the Spanish DP in (7):

(7) He comprado muchos de los libros I have bought many of the books

raises the question of why DPs following partitive *de* cannot get a generic interpretation. Note in this respect that "definite" DPs can get a generic interpretation after *non-partitive de*, as shown in the Spanish example in (8):

(8) La melena de los leones es encantadora the mane of the lions is charming

Putting aside the obligatory non-generic interpretation for the definite DP only in the cases in which an overt quantifier precedes de, cf. (7), there are other interesting phenomena involved in these contexts, which will be presented in the following sections.

#### 2. DPs and Bare NPs in Indefinite Contexts

In the preceding section we considered the obligatory occurrence of an expletive determiner in cases like those in (1) and (2), repeated here under (9) and (10):

- (9) J'ai mangé de \*(le) pain I have eaten of the bread
- (10) J'ai de \*(les) crayons I have of the pencils

This expletive determiner may disappear in: a) negative contexts (cf., (11)) and b) in the presence of a prenominal adjective (cf., 12)):

- (11) Je n'ai pas mangé de (le) pain I NEG have NEG eaten of the bread
- (12) a. J'ai acheté de (les) bons crayons.
  b. J'ai acheté de ?/??(le) bon vin. (Milner 1978: 31)

The acceptability of examples like that in (12b) without determiner varies with the examples. Milner (1978: 31) makes the following comment on (12b): "Que dans le second cas (i.e., (12b)), le processus soit archaique et marqué de preciosité, cela attenue mais ne supprime pas la portée du rapprochement."

In the following sections an account will be provided of how the occurrence of a prenominal adjective may condition the occurrence of the particular type of expletive determiner found in the French indefinite constructions discussed here.<sup>1</sup>

#### Configurational Properties of French Expletive Determiners in Indefinite Contexts 3.

Elaborating on the analysis developed in Androutsopoulou (2000b) for Greek determiners, we claim that the expletive determiner in French indefinite constructions such as the one in (1)-(2) is not introduced in the derivation under D, that is in the configuration in (13b), but rather that it is raised to D from a lower position, i.e. following the derivation in (13c):

- (13)J'ai acheté de (les) bons crayons. a. I have bought of the good pencils.
  - b.
  - $\begin{bmatrix} DP & [D \text{ les}] & [PP^2 \text{ AP } [F] & [NP & [N \text{ crayons}] \end{bmatrix} \end{bmatrix}$  $\begin{bmatrix} DP & [D \text{ les}_i] & [DP*3 & [D*3t_i] & [DP*2 & [AP \text{ bons}] & [D*2t_i] & [DP*1 & [NP_i \text{ crayons}] & [D*1 & [DP*1 & [NP_i \text{ crayons}] & [D*1 & [NP_i \text$  $t_{i}$ ]  $t_{i}$ ]]]

DP\*s are DP-like functional projections, in the sense that they may host an expletive definite determiner, for instance a pleonastic definite determiner in a Greek DP containing one or more adjectives, or the trace of an expletive definite determiner.<sup>3</sup> DP\*s do not host any of the semantic features that are usually associated with  $D_0$ .

The contrast between the configurations in (13a) and (13b) allows us to distinguish two types of determiners: the real definite determiner, and the expletive one. We saw in section 2 that the occurrence of expletive determiners obeys some restrictions not holding for full determiners. One of these restrictions involves prenominal adjectives.

#### 4. The Interaction between Expletive Determiners and Prenominal Adjectives in Indefinite Contexts

In section 2, we observed that expletive determiners of the sort considered here may disappear in the presence of a prenominal adjective. It was also observed, however, cf. (12), that in certain cases the elimination of the expletive determiner may yield marginal results. There is a clear contrast in acceptability between the examples in (14):

to kokino to vivlio (i) the red the book "the red book"

(ii) [DP to; [DP\*3 [kokino]; [D\*03 t;] [DP\*2 t; [D\*02tok] [ [DP\*1 [NP vivlio]]m [D\*01 tk] tm t;

<sup>&</sup>lt;sup>1</sup> With respect to the interaction of negation and the determiner under consideration, i.e. the phenomena illustrated in (11), we have nothing interesting to say at this point.

<sup>&</sup>lt;sup>2</sup> FP stands for Functional Projection (Cinque 1994).

<sup>&</sup>lt;sup>3</sup>We refer to example like that in (i), which in Androutsopoulou 2000b, are assigned the structure in (ii):

- (14) a. ??J'ai acheté de bon vin.
  - I have bought of good wine.b. J'ai mangé de bonnes carottes.I have eaten of good carrot-PL.

We would like to claim that the problem with (14a) lies with the *mass* character of the noun, i.e., *vin.*<sup>4</sup> (14b) shows that when a countable noun is involved, the determiner can be freely eliminated. Note, in addition, that in both cases the version with the expletive determiner is fully acceptable:

(15) a. J'ai acheté du bon vin I have bought of-the good wine
b. J'ai mangé des bonnes carottes I have eaten of-the good carrot-PL

Putting the paradigm in (14)-(15) under the perspective of the basic proposal outlined in section 3 (i.e. that the expletive determiner is raised up to D from a projection immediately above NP), we can conclude that a) apart from the derivation in (13c), there is an alternative derivation, which does not involve expletive determiner, and b) that this alternative derivation is blocked in the presence of a mass noun.

We would like to propose that the alternative derivation in question involves partial N-raising, as shown in  $(16)^5$ :



That is, N is raised up to the projection, i.e., DP\*2, where agreement between the adjective and the noun in -features is checked. We don't have a clear idea of why the insertion of the expletive determiner under D\*'1 in the derivation is optional, but we take it to be the case, cf. section 6 for further discussion. The same step in the derivation proposed in (16) for *de bonnes carottes* should in principle be possible for ??de bon vin:

<sup>4</sup> As noted in section 1, traditional partitive contructions with mass nouns have been assimilated to traditional plural indefinite constructions (Milner 1978). We see now that, although these constructions may be very similar from a configurational and perhaps a semantic (cf., Chierchia 1998, who treats mass nouns as semantically plural) point of view, there are significant differences between the two, such as the one in (14). <sup>5</sup> Partial N-raising is a standard assumption for a number of Romance languages (see Bernstein 1993, Cinque, 1994, Valois 1991, among many others).



We would like to claim that the derivation of *de bon vin* crashes at the point of the derivation depicted in (17). Mass nouns like *vin* lack a specification for Number, and a proper number form for the agreeing adjective in Spec, DP\*2 in (17) cannot be selected. The derivation crashes because agreement in number is not possible. On the other hand, *carottes*, which has a [Number] feature, can agree in all the relevant -features with the adjective in Spec, DP\*2. The alternative derivation involving generation and raising of an expletive determiner in the case of mass nouns does not encounter the same sort of problems:



The determiner *le* can enter in an agreement relation with the adjective in Spec, DP\*2, and the derivation in (18) goes through. The question that arises now is whether the determiner merged under D\*1 must agree in number with the NP (a mass noun) in Spec, DP\*1, and if so, why this does not render the derivation illicit. We present an answer to this question in the following section.

#### 4.1 Asymmetric Agreement

The contrast between adjectives and determiners with respect to agreement with the noun, which arose in the preceding section can be accounted for if we assume that the agreement relation is essentially asymmetric. By asymmetric we mean:

### (19) Principle of asymmetric agreement In an agreement relation between two elements and , where is the head and is the specifier, the set of agreeing features of must be a subset of the set of agreeing features of $.^{6}$

According to (19), a head must agree with all the agreeing features of the specifier. Otherwise, the agreeing features of the specifier would not be a subset (not even a non-proper subset) of the agreeing features of the head. In the case under consideration in (17), [Number] is not an agreeing feature on the mass noun, but it is an agreeing feature on the adjective *bon*. Thus, the set of agreeing features on the head *vin*, will be a subset of the set of agreeing features on the specifier *bon*, contravening the principle in (19):



On the other hand, [Number] is an agreeing feature on the determiner le, raised to D\*2:



Therefore, the set of agreeing features of , presumably [Number], [Gender] and [Case], is a subset, although a non-proper one, of the set of agreeing features of the determiner, i.e. Finally, the principle in (19) does not rule out a possible agreement relation between N and D under DP\*1. We have assumed that the mass noun *vin* is defective with respect to the feature [Number], which means that [Number] is not an agreeing feature of *vin*. However, this is not a problem in the configuration under DP\*1, because *le*, which contains a superset of the set of agreeing features of *vin*, is the head in this configuration.

#### 5. Postnominal Adjectives in Partitive Contexts

We have provided an analysis of the distribution of the expletive determiner of partitive contexts in the cases involving prenominal adjectives. The examples in (22) show that only prenominal adjectives are compatible with determinerless NPs:

<sup>&</sup>lt;sup>6</sup> Chomsky (1998) discusses cases in which a *probe* and a *goal* (a head and a specifier, respectively, in standard terminology) entering into an agreement relation do not have the same number of features and makes use of this fact to allow for a feature not to *erase* and thus, enter in multiple checking relations.

- (22) a. \*J'ai mangé de carottes jaunes. I have eaten of carrot-PL yellow-PL
  - b. J'ai mangé de bonnes carottes. I have eaten of good carrot-PL
  - c. J'ai mangé des bonnes carottes. I have eaten of-the good carrot-PL
  - d. J'ai mangé des carottes jaunes. I have eaten of-the carrot-PL yellow-PL

Thus, with a prenominal determiner like *bon*, the expletive determiner may or may not appear, cf. (22b)-(22c), whereas with a postnominal adjective like *jaune*, the expletive determiner is obligatory, cf. the contrast between (14a) and (22d). Prenominal and postnominal adjectives, then, impose different configurational conditions on the overall structure of the DP, so that the possibility of occurrence of an expletive determiner is affected by these configurational conditions. In fact, the paradigm in (22) cannot be explained if we simply assume that this configurational difference between pre- and postnominal adjectives is just a difference between left versus right adjunction. We would like to outline an account of the effect illustrated in (22) on the basis of a derivational theory of postnominal adjectives. In agreement with the approach in (Kayne 1994), we propose that French postnominal adjective involve movement of a projection containing the noun from a position lower than the adjective to the left of the adjectival projections.<sup>7</sup> The core idea is implemented for (22d) as shown in (23)-(25):



<sup>&</sup>lt;sup>7</sup> Androutsopoulou (1994) had independently proposed that the noun is preposed via phrasal movement in Greek definite DPs involving postnominal adjectives.

The derivation up to (23) is identical for prenominal and postnominal adjectives. We would like to claim that, at this point, a D feature is introduced in the derivation above DP\*2, i.e., under DP\*3, and that the spell-out of this D-feature is the adjectival determiner found in languages like Greek or Albanian (Androutsopoulou 2000a). Furthermore, the AP moves to the specifier of the new D\*-head, with which it agrees in the relevant -features, as shown in (24): At this point, D and DP\*2 are raised to the highest DP in the structure:<sup>8</sup>



The proposed derivation in (23)-(25) entails that Romance languages have a zero D\*-head, which corresponds to the adjectival determiners found in other languages, at least in the cases in which the adjectives appear postnominally. Movement of DP\*2 to the specifier of DP is only possible if DP\*2 is headed by a determiner. If DP\*2 is headed by N, then the constituent to be moved has no proper feature specification and therefore, no movement is possible. This distinction is reflected empirically in the fact that postnominal adjectives are incompatible with determinerless DPs in the contexts under discussion, i.e. the ungrammaticality of (22a). What we have in mind here is a "hybrid" derivation which would involve partial N-raising, as in the derivation in (16), insertion of the null expletive determiner D and movement of the adjective to Spec, DP\*3, as in (24), and raising of DP\*2, as in (25).

#### 6. Determiner Optionality and Adjectival Determiners

In section 4, which deals with French partitives containing an adjective, we assumed that the introduction of an expletive determiner under DP\*1 is in principle optional. This optionality is not reflected in data such as those in (26), involving French partitives which do not contain an adjective:

- (26) a. J'ai mangé du pain. I have eaten of-the bread.
  - b. \*J'ai mangé de pain. I have eaten of bread.
  - c. J'ai mangé des carottes. I have eaten of-the carrot-PL
  - d. \*J'ai mangé de carottes. I have eaten of carrot-PL

<sup>&</sup>lt;sup>8</sup>It may be the case that the projection to the specifier and head of which [les carottes] and D are raised respectively is not DP, that is, the topmost projection of the DP, but yet another DP\*, DP\*4, immediately dominated by DP. Then, a final step in the derivation would be movement of the article *les* out of [les carottes] to left-adjoin to D0.

The data in (26) seem to indicate that the expletive determiner is not optional, but rather obligatory. In spite of the apparent lack of optionality found in the paradigm in (26), we would like to claim that the insertion into the numeration of an expletive determiner is still optional in principle. The ungrammaticality of the examples without determiner in (26) does not reflect the fact that the occurrence of the expletive determiner is obligatory, but that a derivation not involving a determiner is unavailable. The ungrammaticality of the examples without determiner in (26) has its source in the fact that nouns are not raised up to D in French, presumably because they lack the appropriate categorial D-feature. Consequently, in the absence of a determiner which is generated in a Spec-Head configuration with the noun in a low D(-like) position (the head of DP\*2 in our structures) and then is raised up to D, as in (13b) or (18), transmission of features from N to D is not achieved. Thus, the presence of the determiner is rendered obligatory. In the sort of structures considered in this paper, N may undergo partial raising up to the adjectival agreement projection, i.e., DP\*2, cf. the partial derivation in (16), but not up to D. In fact, the availability of movement to the adjectival agreement position has been interpreted as the source of the contrast between mass and countable nouns in partitive contexts involving prenominal adjectives, cf. (14). The fact that the noun may be raised to a projection under which it enters into an agreement relation with an adjective opens new possibilities for the transmission of -features from the noun up to D. In other words, the presence of a low D-head which is raised and transmits -features may be obviated in cases in which the alternative derivation -namely, movement of the noun to the projection (DP\*2 in our structures) under which it enters into an agreement relation with the adjective- is possible. Let us consider again in detail the relevant cases.

The contrast in (14) gives us the only case in which the occurrence of the expletive determiner may be obviated, namely, (14b), the case in which the adjective is prenominal and the noun is a countable noun. One might think that the complete derivation of the post-de DP in (14b) is as in (27), cf. also (16):



The derivation in (27) combines the one in (16) and that in (25). It provides a framework flexible enough to derive prenominal and postnominal adjectives with the desired properties with respect to the occurrence of expletive determiners in indefinite contexts. However, it fails to provide a configurational characterization distinguishing prenominal from postnominal adjectives. Both types of adjectives move to Spec, DP\*2, agree with the noun or an intermediate expletive determiner, and finally move to Spec, DP\*3 and agree with the null adjectival determiner. Consideration of the derivation in (28) lends support to the suggestion that an adequate treatment of the set of constructions under discussion must involve a different characterization of prenominal adjectives:



The string resulting from (28), i.e., \**du vin bon*, is ungrammatical. Nothing said so far rules out (28). The expletive determiner can be licensed under DP\*1, then be raised to the head of DP\*2 where it agrees with the adjective. After the movement of the adjective to Spec, DP\*3, the determiner, pied-piping the NP, moves to Spec, DP.

We would like to propose, following the analysis of Greek adjectival modification in (Androutsopoulou 2000b), that prenominal adjectives differ from postnominal ones as follows: prenominal adjectives move to the head of  $D^*$ '3 and subsequently to D. Accordingly, the structure in (27) should be revised as in (29):



If we think of the movement of A to the head of DP as a substitution movement, which among other consequences, renders the head of DP inert with respect to its ability to attract a constituent to its specifier, then the derivation in (30) is ruled out, cf. (28). DP\*2 cannot move to Spec, DP because it is not attracted by any relevant head:

# (30) $[DP [DP*2 t_k le vin]_m [D bon_k] [DP*3 [D*3 t_k] t_m]]$

We have proposed that in the general case, prenominal adjectives end up as heads, as in English, whereas postnominal adjectives are specifiers throughout the whole syntactic derivation. This squares well with independent properties distinguishing prenominal from postnominal adjectives; for instance, Romance prenominal adjectives, in contrast to postnominal ones, cannot take complements. There is one case in which prenominal adjectives may stay in a specifier position. The cases in which the expletive determiner is raised up to D from DP\*1, cf., (18). That is, cases like *du bon vin* or *des bonnes carottes*.

#### 7. Conclusion

We have provided an account of the distribution of expletive definite determiners in French indefinite contexts based on the idea that this type of determiner is generated low within the DP and is raised up to D. The introduction of this determiner is optional, and in the general case it mediates the transmission of nominal features up to D. This expletive determiner may be absent only if there is a prenominal adjective and the noun is a countable one. To account for this case, we have claimed that there may be partial N-raising to a projection in which N agrees with the prenominal adjective. This agreement relation enables the transmission of nominal features up to D. In addition, we have derived the particular behavior of postnominal adjectives which do not allow determinerless DPs in the contexts under consideration by means of DP-internal XPmovement.

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