

HEAD MOVEMENT TO D⁰ IN ROMANIAN*

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1. Introduction

This paper attempts to establish the grammatical principles and constraints that govern the behaviour of the definite article in DPs like (1), where the definite suffix/clitic occurs second within the DP and attaches to a noun or to an adjective.

- (1) a. femei-**a** înaltă
 woman-DEF tall
 ‘the tall woman’
- b. înalt-**a** femeie
 tall-DEF woman
 ‘the tall woman’

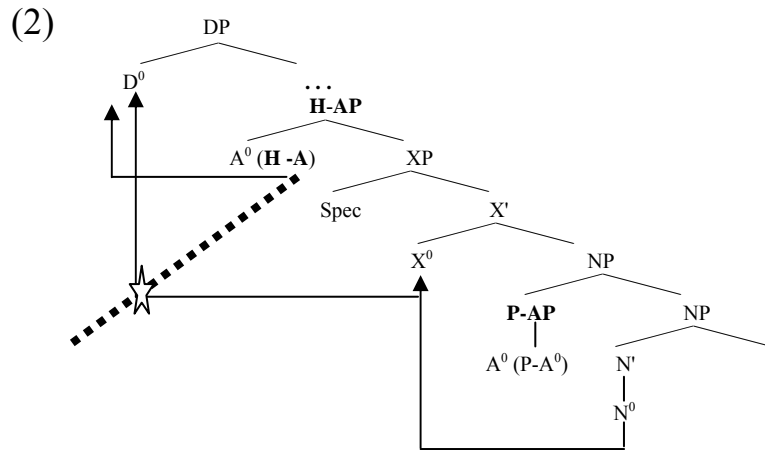
The data in (1) give rise to the following questions on the distribution of the definite marker. Does the suffixation/cliticization of the definite article obey syntactic principles and constraints? Second, since in (1) the definite suffix is hosted by a noun or by an adjective, what type of element can serve as host for the definite enclitic? That is, if the cliticization is syntactic, does the definite article attach to heads and/or to phrases? Also, is the appearance of the definite article the result of movement and/or agreement? In this paper I will address the questions above and suggest a possible solution to the puzzle.

In previous proposals by Cornilescu (1992, 1995), Dobrovie-Sorin (1992) and Giusti (1995) two syntactic processes are used to account for the distribution of the Romanian definite enclitic: head movement of N⁰ to D⁰ and phrasal movement of AP to Spec/DP followed by Spec-head agreement between the features of AP and D⁰ (henceforth the AP-movement analysis). Common to all AP-movement analyses is the base generation of all adjectives in the specifier of NP or the specifier of some intermediate functional phrases within the extended projection of DP as proposed by Cinque (1994). However, adjectives as a whole do not exhibit a homogeneous behaviour within the DP and particularly not in the presence of the definite article, thus making additional stipulations necessary. Indeed, most problems encountered by previous proposals concern restrictions on the distribution of the definite article in DPs containing adjectives.

In an attempt to provide an account for the distribution of the definite article that also comprises the asymmetric behaviour of APs, I will assume that APs occur in two distinct structural configurations: head-adjectives and phrasal-adjectives (henceforth H-Adjectives and P-Adjectives respectively). Adjectives that surface

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pre-nominally are base generated as heads that take the complement XP, a functional category within the extended projection of DP; while adjectives that surface post-nominally are base generated as adjuncts or specifiers of NP (or of lower functional categories placed between XP and NP). In addition, I propose that the realization of the definite article can be uniformly accounted for in terms of head movement of the element hosting the definite suffix to D^0 , where potential hosts are N^0 , $H-A^0$, and Det^0 (the head of DetP, a phrase between DP and H-AP).



2. N^0/X^0 to D^0 movement

In the literature on Romanian DPs, there is general agreement regarding the realization of the definite article on the noun. Dobrovie-Sorin (1992), Cornilescu (1992,1995) and Giusti (1995) have all analyzed this phenomenon as an instance of head movement of N^0 to D^0 . This account is mainly based on examples like (3) taken from Cornilescu (1992:211) according to which the noun head bearing the definite article must occur in DP initial position leaving its specifier (here the AP), its complement and its PP modifier behind.

- (3) distrugere-a aceasta brutală a oraşului în ultimii ani
 destruction-DEF this brutal of city DEF in last DEF years
 ‘this brutal destruction of the city over the last few years’

Following these accounts, I will analyze the affixation of the definite article on nouns as head movement of N^0 to D^0 . In addition, following Cinque (1994), I will assume that the noun undergoes obligatory short head movement from N^0 to X^0 , the head of the functional projection between NP and DP. Thus, the complement and modifiers (PPs and P-Adjectives) of the noun are left behind and always appear after the noun at surface structure.

2.1 Evidence for Head movement of the Noun

As noted by Cornilescu (1992), elements such as demonstratives and cardinals, which precede the noun when the definite article is absent, follow it when the noun bears the definite article, as in the examples in (4).

- (4) a. *acesti* *trei* *copii*
 these three children
 ‘these three children’
- b. *copii-i* *acestia* *trei*
 children-DEF these three
 ‘these three children’

In (4a) the demonstrative and cardinal precede the noun but follow it in (4b), where the noun is DP initial and bears the definite article. Importantly, in (5), the noun cannot occur in DP initial position if it does not bear the definite article, nor can the definite article surface on a noun that is not DP initial.

- (5) a. **copii* *acesti(a)* *trei*
 children these three
- b. **acesti(a)* *trei* *copii-i*
 these three children-DEF
 ‘these three children’

The fact that the noun in (5a) cannot precede the demonstrative and cardinal without bearing the definite article, suggests that the noun is positioned below the demonstrative and cardinal and can only move to DP initial position when it serves as host for the definite article. Moreover, in (5b) the definite article cannot attach to the noun that remains below the demonstrative and cardinal, suggesting that the definite article suffix cannot lower, thus reinforcing the assumption that it is the noun that has to undergo movement (to DP initial position).¹ The movement of the noun deriving the word order in (4b) is illustrated in (6).

- (6) *copii-i* *acestia* *trei* t_i
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If we accept the existence of N^0 to X^0 movement proposed by Cinque (1994), the occurrence of the noun in an even higher position within the DP and its hosting of the definite article can be accounted for in terms of cyclic head movement of N^0 to X^0 to D^0 . Thus, in order to assume the X^0 to D^0 movement hypothesis, it must be that the noun has head moved to X^0 from its base generation N^0 position (leaving its complement behind) and the word order difference in the constructions in (4) can be derived solely by moving X^0 to D^0 .² Supporting examples for the cyclic movement of N^0 to X^0 to D^0 are given in (7) below.

¹ For an analysis showing that the affixation of the Romanian definite article cannot be accounted for strictly by Morphological Merger without movement in the syntax see Ungureanu (2003).

² Evidence supporting short N^0 movement in Romanian is presented in Ungureanu (2003) on the basis of scope interactions between P-APs.

- (7) a. acesti trei frați bătuți ai Ioanei
 these three brothers beaten of Joan
 ‘these three beaten up brothers of Joan’
- b. frați-i acestia trei bătuți ai Ioanei
 brothers-DEF these three beaten of Joan
 ‘these three beaten up brothers of Joan’

In (7a) a typical P-Adjective intervenes between the head-noun (that does not bear the definite article) and its complement, suggesting that N^0 has moved from its base position to X^0 , bypassing its AP modifier base generated to the left of NP, and leaving its complement behind. In (7b) the N^0 head occurs DP initially and bears the definite article. Here too, the noun bypasses the demonstrative and cardinal, which suggests that the noun has moved from X^0 to D^0 . The movement I propose for the derived form in (7b) is given in (8).

- (8) [_Dfrați-i acestia t_N trei t_N [_X t_N bătuți [_N t_N ai Ioanei]]]
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If movement of the noun to DP initial position is head movement of X^0 to D^0 , then it must be the case that the cardinal and the demonstrative in (8) are not in a c-commanding head position, since they do not block head movement of X^0 . If these two categories are specifiers of intermediate phrases, however, I must assume that X^0 passes through the intermediate heads on its way to D^0 .

3. A^0 to D^0 Movement

Most accounts on the distribution of the definite article in Romanian claim that APs undergo phrasal movement to Spec/DP and the definite marker is the result of Spec-head agreement between the AP in Spec/DP and D^0 . Crucially, common to all these accounts is the base generation of all APs in the specifier of NP or the specifier of some functional category within the DP. Conversely, I argue that the affixation of the definite article on adjectives results from head movement of H-Adjectives to D^0 , provided that we assume the two structurally distinct positions for adjectives, H-Adjective and P-Adjective, illustrated in the tree structure in (2). This structural hypothesis, in conjunction with the HMC, accounts for the distribution of the definite article on nouns, adjectives and the indefinite article.

To support the present proposal I will show that there is a direct correlation between the positions of adjectives and their possibility to host the definite article and that the movement of adjectives to the DP domain parallels the previously established N^0 to D^0 movement. That is, among APs only H-Adjectives can host the definite article and they: (a) block the movement of N^0/X^0 to D^0 ; (b) bypass the same categories as the noun; and (c) their movement is blocked by the same elements that block N^0 to D^0 movement.

The surface positions of APs relevant for the present analysis are pre-nominal (hence-forth position I) versus post-nominal (henceforth position II).³ Since in Romanian DPs no element may bypass the indefinite article, indefinite article constructions will serve as diagnostic for the position of nouns and adjectives prior to their movement to the DP domain. Based on this diagnostic we can distinguish four types of APs: Those restricted to position I, those restricted to position II; those that can occur in both positions and receive an emphatic interpretation in position I; and finally, those that occur in both positions but can receive a different meaning in position I. Below are examples for each of these AP types.

Type 1: Adjectives restricted to position I: E.g. *biet* -‘poor’, *fost* -‘former’

- (9) a. un biet copil
 INDEF poor child
 ‘a poor/wretched child
- b. *un copil biet
 INDEF child poor

Type 2: Adjectives restricted to positions II: E.g.: *bătut* ‘beaten’, *solar* ‘solar’,

- (10) a. *un bătut copil
 INDEF beaten child
- b. un copil bătut
 INDEF child beaten
 ‘a beaten up child’

Type 3: Positions I and II with emphatic interpretation

- (11) a. o frumoasă fată
 INDEF beautiful girl
 ‘a beautiful (emphatic) girl’
- b. o fată frumoasă
 INDEF girl beautiful
 ‘a beautiful girl’

Type 4 Positions I and II with distinct meanings

- (12) a. o singură fată meanings **1 and 2** (emphatic)
 INDEF only/lonely girl
 Meaning1 ‘only one girl ’ **or** Meaning 2 ‘ a lonely (emphatic) girl’

³ Post-nominal APs can be further distinguished as preceding or following the complement of the noun and in the pre-nominal position APs seem to be ordered depending on their interpretation.

- b. o fată singură meaning **2 only**
 INDEF girl alone
 ‘a lonely girl’

3.1 Asymmetries between H-Adjectives and P-Adjectives with respect to D⁰

I will show next that the structural hypothesis proposed here in conjunction with the uniform head movement to D⁰ analysis accounts for the asymmetries that obtain between the different types of adjectives with respect to their movement to the DP domain. That is, only H-Adjectives can head move to D⁰, while P-Adjectives may never do so. Where APs that surface pre-nominally are H-Adjectives while APs that surface post-nominally are P-Adjectives.

Let us first look at the distribution of type 1 adjectives in a definite article construction. In (13a) the definite article is attached to the adjective, which is in pre-nominal surface position. Importantly, in (13b) the noun cannot occur in DP initial position and bear the definite article.

- (13) a. biet-ul copil
 poor-DEF child
- b. *copil-ul biet
 child-DEF poor
 ‘the poor child’

The ungrammaticality in (13b) could be explained as a consequence of the HMC if we assume the structure in (2). Here, the H-Adjective is a head that c-commands N⁰ and intervenes between D⁰ and N⁰. Thus, according to the HMC, the H-Adjective blocks movement of N⁰/X⁰ to D⁰. However, no immediate explanation for the ungrammaticality of (13b) is available under an AP-movement analysis that assumes a structure where all APs are specifiers of or adjoined to NP (or any other phrase) since they should not affect head movement of N⁰ to D⁰ movement. In order to account for grammaticality alternations like those in (13) Cornilescu (1992) assumes that APs of the *biet* type have a special status and must obey a condition according to which they obligatorily c-command the noun at surface structure. While this condition is sufficient to account for the fact that the noun cannot move to D⁰ and bear the definite article in (13b), it proves insufficient to account for data that will be discussed in section 3.3. Under the analysis proposed in this paper the word-order effects found with type 1 APs follow from previously established principles of grammar, provided that we assume structurally distinct positions for adjectives.

In (14b), the type 2 P-Adjective *bățut*, in stark contrast with the H-Adjective in (13), cannot bear the definite article and consequently cannot occur in DP initial position. In comparing (13b) to (14b) it can be observed that only in the latter can the noun host the definite article.

- (14) a. *bătut-ul copil
 beaten-DEF child
- b. copil -ul bătut
 child-DEF beaten
 ‘the beaten up child’

The asymmetry between the two types of adjectives is not explained under the AP-movement analyses. If adjectives serve as hosts for the definite article as a result of phrasal movement (AP to Spec/DP + agreement) example (14a) should be grammatical. If, however, we assume that affixation of the definite article is the result of head movement, and that P-Adjectives are specifiers or adjuncts, (14a) is expected to be ungrammatical because the X-head is c-commanded by D⁰ and intervenes between D⁰ and the head of the P-Adjective phrase. Thus, head movement of the P-Adjective to D⁰ would incur an HMC violation. Example (14b) as opposed to (13b) suggests that here the noun can bear the definite article since head movement of X⁰ to D⁰ is not blocked by an intervening, c-commanding head.

Another asymmetry between H-Adjectives and P-Adjectives is provided by the APs that can have a different meaning depending on their position relative to the noun as in (15).

- (15) a. o singură femeie meaning **1 and 2** emphatic
 INDEF only woman
 ‘only a/one woman’ or ‘a lonely (emphatic) woman’
- b. o femeie singură meaning **2 only**
 INDEF woman only
 ‘a lonely woman’
- c. singur-a femeie meaning **1 and 2** emphatic
 only-DEF woman
 ‘the only woman’ or ‘the lonely (emphatic)woman’
- d. femei-a singură meaning **2 only**
 woman-DEF only
 ‘the alone/ lonely woman’

In (15a,b) the adjective *singură* has two different meanings in the H-Adjective position but only one in the P-Adjective position. Meaning 1, which is associated with the H-Adjective position in (15a), can be preserved in a definite article construction only if it is the adjective that bears the definite article, as in (15c). Note that the emphatic meaning 2 is also possible only in the H-Adjective position and if it is the adjective that bears the definite article, as in (15c). If it is the noun that bears the definite article, as in (15d), only the non-emphatic meaning 2 associated with the P-Adjective position is available. Thus, there is a direct correlation between the absence of one of the meanings of the adjective and the structural position it occupies under the proposed analysis. Since H-Adjectives

3.2 What can H-Adjectives Bypass?

If we assume that the affixation of the definite article on the H-Adjectives is the result of head movement of A^0 to D^0 , we expect that these adjectives can bypass all and only the same categories that the noun can bypass i.e. demonstratives and cardinals. Indeed, the distribution of H-Adjectives with respect to the definite affix on the one hand and the demonstratives and cardinals on the other hand follows a parallel pattern to that of the noun.

In (18a) the adjective *bieți* is preceded by the demonstrative and the cardinal, but followed by the same two categories in (18b), where the adjective bears the definite article and is DP initial.

- (18) a. acești trei bieți copii
 these three poor children
- b. ?bieți-i acești trei copii
 poor-DEF these three children
 ‘these three poor children’

Like the noun, the adjective in (19a) cannot precede either the demonstrative or the cardinal if it does not bear the definite article; nor can the definite article attach to the adjective in its base position as shown by (19b).

- (19) a. *bieți acești(a) trei copii
 poor these three children
 ‘these three poor children’
- b. *acești(a) trei bieți-i copii
 these three poor-DEF children

The example in (19a) suggests that the H-Adjective starts out below the demonstrative, while (19b) shows that the definite affix cannot lower to attach to the adjective ‘*bieți*’. These observations suggest that the example in (18b) is derived by moving the adjective past the demonstrative and the cardinal to a DP initial position where it serves as host for the definite article, as represented in (20).

- (20) bieți_i-i acești trei t_i copii
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Again, the behaviour of H-Adjectives parallels that of the noun with respect to the definite marker. As discussed in section 2.1, the noun is also base generated below demonstratives and cardinals and only precedes them when it hosts the definite article, provided that no H-Adjective is present, since, according to the present analysis, it would block X^0 to D^0 movement.

If we were to assume that the realization of the definite article on adjectives is an instance of AP movement to Spec/DP, we would expect that no matter what

position demonstratives and cardinals occupy, the movement of nouns and adjectives to the DP domain is asymmetric. That is, if the demonstrative and cardinal are heads, movement of N^0 should be blocked and movement of AP should bypass the heads. If the demonstrative and cardinal are in specifier position (of some intermediate functional category), movement of N^0 should be possible, but movement of the AP would be blocked by the intervening specifiers. However, both N^0 and H-Adjectives can bypass the same categories, thus, supporting the hypothesis that they both undergo the same type of movement, namely head movement.

3.3 What blocks movement of H-Adjectives and X^0/N^0 to D^0 ?

Yet another method to confirm that both H-Adjectives and N^0/X^0 undergo head movement to D^0 is to show that their movement is blocked by the same category, specifically an intervening head that could ideally itself move to D^0 . This element is the indefinite article (or a quantifier-like element) *un*.⁵ In Romanian, the indefinite *un* is base generated above H-Adjectives and nouns and can host the definite article.⁶ In what follows, I will show that the movement of either N^0/X^0 or H-Adjectives past the indefinite *un*, an intervening head, results in ungrammaticality possibly as a result of an HMC and/or Relativized Minimality violation.

Let us first look at the behaviour of the noun in the [indefinite article – definite suffix] construction in (21), where the definite suffix can only attach to the indefinite article but not to the noun.

- (21) a. uni-i copii
 INDEF PL.-DEF copii
 ‘some (of the) children’
- b. *copii(-i) uni
 children (-DEF) INDEF PL.
- c. *uni copii-i
 INDEF PL. children-DEF

In (21a), the indefinite article is in DP initial position and serves as host for the definite article. Conversely, in (21b) the noun cannot be in DP initial position nor

⁵ It should not be assumed that the indefinite article *un* is a cardinal, since a number of differences in the distribution of the two elements suggest that they have different syntactic properties. For instance, nouns and adjectives can never bypass the indefinite article *un*, but they can bypass cardinals. Also, the indefinite article *un* can host the definite article but cardinals cannot. Also, the indefinite article can be marked for case, while cardinals cannot.

⁶ Only the plural forms of the [indefinite + definite affix] can co-occur with overt nouns. However, all forms (singular and plural) of the [indefinite + definite affix] can be used pronominally. Interestingly, constructions with the [indefinite. + definite affix] sequence do not receive a definite interpretation.

can it bear the definite article. In fact, nouns can never precede the indefinite article whether in a definite suffix construction or not, suggesting that the indefinite article occupies a position above X^0 . Example (21c) shows yet again that the definite article cannot lower past intervening material and attach to the noun. Having established in section 2.1 that the affixation of the definite article on the noun results from N^0/X^0 to D^0 movement, the ungrammaticality in (21b) suggests that the noun cannot head move to D^0 past the indefinite article, this in turn indicating that the indefinite article blocks head movement of N^0/X^0 to D^0 .

The fact that the indefinite article blocks head movement of N^0/X^0 to D^0 and is capable of hosting the definite article supports the assumption made by Cornilescu (1992) regarding the base generation of the indefinite article. According to her, the indefinite article is base generated in Det^0 , the head of a functional phrase, which is sister to D^0 . Thus, the indefinite article *un* is an intervening head for movement of N^0 to D^0 and is a candidate for movement to D^0 from Det^0 .

Given that $DetP$ is also above H-Adjectives (they can never precede the indefinite article), the structural and movement assumptions made in the present paper predict that Det^0 should also block movement of H-Adjectives to D^0 . Indeed, the distribution of H-Adjectives with respect to the indefinite and the definite affix parallels the one observed for nouns since in (22) it is the indefinite article that hosts the definite article not the H-Adjective.

- (22) a. uni-i foști președinți
 INDEF PL.-DEF former presidents
 ‘some (of the) former presidents’
- b. *foști-i uni președinți
 former-DEF INDEF PL. presidents
- c. *uni foști-i președinți
 INDEF PL former-DEF presidents

In (22b) the type 1 H- Adjective *foști* cannot move to D^0 nor can the definite article in (22c) lower and attach to the adjective. Again, when present, it is only the indefinite article that can serve as host for the definite article as in (22a).

The blocking effects of the same intervening head on the movement of N^0 and H-Adjectives to DP initial position support the unified head movement analysis proposed here. If movement of adjectives were instead an instance of AP movement to Spec/DP we would expect the adjective in (22b) to be able to bear the definite article and precede the indefinite article *un*. Note that even with the additional condition of ‘always c-commanding attributive adjectives at surface structure’ and the DP structure proposed by Cornilescu (1992), the ungrammaticality in (22b) cannot be accounted for under an AP-movement analysis. This analysis would predict (22b) to be grammatical, given that the AP does c-command the noun at surface structure. In addition, Cornilescu (1995) and Giusti (1995) propose a “doubly filled DP” restriction (parallel to the doubly filled Comp) meant to account, among others, for the fact that constructions where both the adjective and the noun bear the definite article are unattested. In effect, the

“doubly filled DP” restriction ensures that movement of AP to Spec/DP and movement of N⁰ to D⁰ cannot co-occur within the same DP. Under the structural and movement hypotheses proposed in the present paper, DPs with both the adjective and the noun raising to the DP domain are ruled out by virtue of the fact that both potential definite article hosts compete for the same position – D⁰.

I argued that the instantiation of the definite article on adjectives could be analysed as an instance of head movement of H-Adjectives to D⁰. The A⁰ to D⁰ movement argument relies on the assumption that H-Adjectives are phrases within the extended projection of the noun and have a distinct structural status from NP-Adjectives, which occupy specifier positions. This assumption was based on the following observations: the two types of adjectives have an asymmetric behaviour with respect to their possibility of fronting in the DP; H-Adjectives block the previously established head movement of N⁰ to D⁰; and the movement of H-Adjectives to the DP domain parallels the head movement of N⁰ to D⁰.

4. Conclusion

In this paper I argued that the distribution of the Romanian definite suffix can be accounted for uniformly in terms of head movement of the host to D⁰. This analysis relies on the assumption that adjectives are base generated in two structurally distinct positions: H-Adjectives are heads of phrases within the extended projection of NP; while P-Adjective are specifiers or adjoined to NP (or some intermediate functional category). This structural assumption coupled with the head movement to D⁰ analysis (and the HMC) provide a potential account for asymmetries among adjectives and their distribution with respect to the definite article, syntactic environments that proved problematic for previous analyses.

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