

# NOMINAL PERIPHERIES AND PHASE STRUCTURE IN THE ROMANIAN $DP^I$

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**Abstract.** In this paper, we argue for the existence of two nominal peripheries (the  $n^*$ -periphery and the  $d^*$ -periphery), corresponding to the two phases (cf. Chomsky 2001, 2009, Legate 2003) inside the determiner phrase: the  $n^*$ -phase, parallel to the  $vP$  (as in Svenonius 2004), and the  $d^*$ -phase, parallel to the CP. The existence of the two peripheries is evidenced, in the first part of the paper, by the non-homogeneous behavior of Romanian pre-nominal adjectives, in what concerns properties like genericity, specificity, position with respect to cardinals a.o. The description of periphery adjectives is based on an integrated classification of adjectives from a threefold perspective: syntactic, ontological and combinatorial. In the second part, a typical Romanian structure is investigated in detail: the adjectival article construction (*băiatul cel cuminte*, boy.the that good ‘the good boy’). It is shown that despite its post-nominal position, the adjective is in fact a pre-nominal periphery adjective, which merges above the lower D position in a split DP framework, and is given a focus interpretation. The definite nominal is subsequently attracted to the specifier of the higher D (*cel*). Movement of the noun is possible only if, after the linearization of the  $n^*$ -phase, the definite noun is the edge constituent (cf. Chomsky’s PIC).

## 1. AIM AND CLAIMS

Starting from the premises that phasal domains have peripheries (spaces where P-features are valued) and that there are two phases inside the nominal phrase, we bring evidence for the existence of an  $n^*$ -periphery, parallel to the  $vP$  (cf. Svenonius 2004), and of a  $d^*$ -periphery, parallel to the CP.

Thus, the  $n^*/d^*$ -phases **define their own (isomorphic) peripheries**. This claim is supported by the properties of peripheral adjectives. Like Laenzlinger (2005) for French, we claim that, in Romanian as well, *all* pre-nominal adjectives are *periphery constituents*, in the sense that they all *check P-features*. This hypothesis explains the systematically different interpretations that the same adjective has in pre-nominal as opposed to post-nominal position. Unlike Laenzlinger (2005) however, we claim that, at least in Romanian, the *pre-nominal space is non-homogeneous*, including an  $n^*$ -periphery and a  $d^*$ -periphery. This hypothesis is motivated by the fact that, depending on their type, pre-nominal

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adjectives manifest *very different interpretative properties* (cf. also Zamparelli 1993). These interpretative differences, as well as the relative distribution of adjectives, may be accounted for by assuming that some pre-nominal adjectives are in the *n*\*-periphery, while others are in the *d*\*-periphery.

We also claim that certain constructions should be viewed as periphery ones, in as much as they are best described by adopting a split D hypothesis. This is the case of Romanian double definite constructions, one of which, the adjectival article construction, is examined in detail in the second part of the paper.

## 2. ADJECTIVES AND NOMINAL PERIPHERIES

### 2.1. Nominal peripheries and P-features

Research on the DP periphery has exploited the DP/CP analogy, assuming that there are DP-internal Topic and Focus phrases (cf. Rizzi 1997, Giusti 1996, Ihsane, Puskas 2001, Aboh 2004, a.o.). In the same vein, Laenzlinger (2005) defines the *d*\*-periphery as a *split-D area*, between a lower  $D_{\text{determination}}$  which checks agreement, and a higher  $D_{\text{deixis}}$ , responsible for referential interpretation. The functional projections that check P-features are supposed to be contained between the inner and the outer D (henceforth  $D_{\text{inner}}$  and  $D_{\text{outer}}$ ).

The examination of P-features has shown that features like Topic and Focus are conceptually complex and ought to be decomposed into more elementary components like  $[\pm\text{new}]$ ,  $[\pm\text{contr}(\text{astive})]$ ,  $[\pm\text{quant}(\text{ifunctional})]$ , etc. By combining these, one defines varieties of foci and topics (see Choi, 1999, Ward, Birner 2001, Bühring, 2003, McNay 2006, Cornilescu 2007). For instance, the combination  $[\text{+contr}, \text{+new}, \text{+quant}]$  describes Contrastive Focus, while  $[\text{+contr}, \text{-new}, \text{+quant}]$  defines Contrastive Topic, etc. A characteristic property of P-features is that they are *quantificational*. This has been convincingly shown in the analyses of Focus (Rooth 1985) and of Contrastive Topic (Bühring 2003), both of them being based on Alternative Semantics. The feature  $[\text{+quant}]$  is thus often included in the structure of P-heads, being part of more specific features like  $[\text{focus}]$ ,  $[\text{topic}]$ ,  $[\text{emphasis}]$ , etc. Since peripheries are phasal edges, the analysis supports Butler's view that phases are quantificational domains (Butler 2004).

### 2.2. The classification of adjectives

The description of the interpretative properties of peripheral adjectives requires their syntactic and semantic classification as a preliminary step, since there is a direct relation between an adjective's denotation and its syntax (cf. Cornilescu 2006, 2009). The classification of adjectives that this analysis relies on integrates three criteria: syntactic, ontological, and semantic.

As in Larson, Marusic (2004), *the syntactic perspective* distinguishes between *NP-* and *DP-adjectives* in terms of the adjective's sister. *NP-adjectives* combine with an NP constituent, while *DP-adjectives* combine with a DP constituent. *NP-adjectives* are *attributive* in the sense of Baker (2003); they directly merge with the NP, *without functional structure mediating the relationship* with the noun. Therefore, NP-adjectives are the “*direct modifiers*” of Sproat, Shih (1988). Given Baker's analysis, NP-adjectives should merge as pre-nominal *adjuncts of the NP*. *DP-adjectives* are sister to DPs. Their main syntactic option is to merge as small clause predicates, and combine with *DP-subjects*. There is however ample evidence (some of it presented below) for the existence of DP-adjectives inside the noun phrase as well.

#### *The ontological perspective*

McNally and Torrent (2003) propose that, in a Carlsonian ontology (Carlson 1977), adjectives may be *object-level* or *kind-level*, whence the well-known ambiguity of phrases like *beautiful dancer*. Object-level adjectives denote properties of *objects*, and have  $\langle e, t \rangle$  denotations. Kind-level adjectives denote properties of kinds, and have denotations of type  $\langle k, t \rangle$ , being *extensional* kind-level modifiers. The best examples of kind-level adjectives are provided by *relative* adjectives, i.e., thematic and classificatory adjectives (cf. Bosque, Picallo 1996), like *national* or *cereal*.

The hall-mark of the object-level adjectives is the possibility of a Proper Name subject. Kind-level (relative) adjectives do not accept Proper Name subjects (see (1a) vs. (1c)). However, contrary to what is often asserted (Bolinger 1967, a.o.), they may be *predicative*, if the subject is kind-denoting, as in (1b) (cf. McNally, Torrent 2003).

- (1) a. \*România<sub><e></sub> este națională <sub><k, t></sub>  
       Romania is national  
     b. [Problemele politice]<sub><k></sub> sunt deseori teritoriale<sub><k, t></sub>  
        problems.the political are often territorial  
        ‘Political problems are often territorial’  
     c. Ion<sub><e></sub> este înalt <sub><e, t></sub>  
        John is tall’

#### *The semantic, combinatorial perspective*

A third factor material in determining the denotation and syntax of an adjective is the mode of semantic combination, that is, how it combines with the NP or DP constituent. Two modes of combination of adjectives and nouns are known: **θ-identification** (or **predicate modification**), and **functional application**.

**θ-Identification (predicate modification)** (cf. Higginbotham 1985) combines two predicates (an AP and an NP) that have the same denotation by means of *set intersection*. Adjectives that may combine with NPs by

$\theta$ -identification are *intersective (restrictive)* adjectives  $red_{\langle e, t \rangle} ball_{\langle e, t \rangle} = \lambda x [[red]](x) \& [[ball]](x)$ .

**Functional application** (cf. Heim, Kratzer 1998) combines constituents that have *denotations of different types*, such that one of them (the function) takes the second one as its argument. A typical example is that of predicative adjectives combining with their subject:  $Bill_{\langle e \rangle} is tall_{\langle e, t \rangle}$ .

*Intensional adjectives* (Montague 1974) like *former*, *alleged* also combine with their NP-sister by functional application. Since their argument is an NP, whose basic denotation is that of a *kind* (cf. Baker 2003), intensional adjectives may be said to map kinds onto kinds (denotation of type  $\langle k, k \rangle$ ) or, alternatively, kind-level predicates onto kind level predicates (denotation of type  $\langle \langle k, t \rangle \langle k, t \rangle \rangle$ , a solution which we adopt:  $former_{\langle \langle k, t \rangle \langle k, t \rangle} president_{\langle e, t \rangle}$ ). Adjectives which combine with NPs or DPs by functional application are non-intersective (non-restrictive).

This classification allows stating an important correlation between the denotation of the adjective and its syntax (for a more detailed analysis, see Cornilescu 2009): all intersective adjectives are NP-adjectives; they merge as pre-nominal adjuncts, combine by  $\theta$ -identification, and in Romance they are linearized in post-head position, following the *Adjunct Second Parameter* (cf. Kremers 2003). Non-intersective adjectives are either NP or DP modifiers (see below); they merge as specifiers, combine by *functional application* with their NP/DP argument, and remain pre-nominal.

### 2.3. The $n^*$ -periphery

Having assumed (like Laenzlinger 2005) that all pre-nominal adjectives in Romance are periphery constituents, we define the  $n^*$ -periphery as the space between the NumP and the lexical NP, containing FPs that check P-features. Empirically, the boundary of the  $n^*$ -phase may be represented by cardinals.

Naturally, the  $n^*$ -phase includes periphery as well as non-periphery adjectives. In the  $n^*$ -domain, adjectives merge in an order that observes the cognitive hierarchies of direct modification (Sproat, Shih 1988, Cinque 1999, 2004b, Crisma 1990, Laenzlinger 2005). Restrictive modifiers in the  $n^*$ -domain (always) merge as *adjuncts*, and combine with the NP through *predicate modification*. At the end of the  $n^*$ -phase, (in languages like Romanian) they are linearized after the head, according to the *Adjunct Second Parameter* (Kremers 2003). Alternatively, in “symmetric syntax” approaches, they directly merge as post-nominal adjuncts. Restrictive adjectives are **not** periphery constituents.

The  $n^*$ -periphery is realized by the adjectives in the  $n^*$ -domain which remain pre-nominal. They merge as *specifiers* of periphery functional heads, and remain *pre-nominal* according to *Select First* (cf. Kremers 2003). They are *non-restrictive modifiers*, which c-select NPs and combine with them by *functional application*.

*N*\*-periphery adjectives check P-features like [+quant], [+modal] a.o., which are inherent to them (the case of intensional adjectives) or which they contextually incorporate. It has been argued (Bouchard 1998) that intensional adjectives in all languages and, in the case of Romance, all adjectives which appear (only) pre-nominally do so precisely because they are modal or quantificational operators (see also Laenzlinger 2005). Here are a few examples:

- (2) a. fost președinte                      b. simplu muritor                      c. BUNĂ treabă  
       former president                      mere mortal                      GOOD job

In addition to their pre-nominal position, *n*\*-periphery adjectives also have **characteristic interpretative properties**.

First, regarding their denotation, *n*\*-periphery adjectives (i.e. pre-nominal adjectives which occur below cardinals and inherently intensional adjectives) are *coerced into a kind-level interpretation*, acquiring denotations of type  $\langle\langle k, t \rangle\langle k, t \rangle\rangle$ , and thus turning into intensional modifiers. In fact, they behave like inherent intensional modifiers with respect to *scope* and other interpretative properties.

For instance, while in post-nominal position (3c), *popular* ‘popular’ is ambiguous between a kind-level reading (popular as a minister) and the object-level (popular as a person, for other reasons than being a minister), in (3b) only the kind level reading survives.

- (3) a. un foarte popular<sub>o</sub> [fost<sub>k</sub> ministru]    b. un fost<sub>k</sub> foarte popular<sub>k</sub> ministru  
       a very popular former minister            a former very popular minister  
       c. un fost<sub>k</sub> ministru foarte popular<sub>o/k</sub>  
       a formerly very popular minister

The most characteristic property of intensional *n*\*-periphery adjectives is that they *stack*, taking scope over the kind-level constituents they c-command. Consider examples (3) once more. Example (3a) is unambiguous, designating a former minister (kind-level reading) who is still a very popular individual (object-level reading). Of interest is the difference between (3b) and (3c), which illustrate an *n*\*-periphery non-intersective modifier in contrast with an (post-nominal) intersective one. In (3b), the two pre-nominal adjectives stack, and as a result, *fost* ‘former’ scopes over *popular* ‘popular’, so the phrase unambiguously designates a minister who used to be popular. In contrast, (3c) is ambiguous as already explained above.

A second type of evidence that *n*\*-periphery adjectives are kind-level modifiers comes from adjectives which have different senses in the kind/object level interpretation ((4a) vs. (4b)). The pre-nominal position (4a) only retains the *kind-level reading*. Thus, when it is pre-nominal and follows an intensional modifier like *fost* ‘former’, the adjective *înalt* ‘tall, high’ only retains the meaning ‘high’ (the kind-level reading):

- (4) a. un fost înalt demnitar      b. un fost demnitar înalt  
a former high official      a former official high/tall

The same semantic contrast obtains in (5): used pre-nominally, the adjectives *simplic* ‘mere’ and *adevărat* ‘real’ are category hedges, focusing on particular defining attributes of the kind denoted by the NP ((5a), (5b)). Therefore, they are clearly intensional. In post-nominal position, it is their descriptive readings which are chosen (*simplic* ‘simple’, *adevărat* ‘true’) ((5a’), (5b’)).

- (5) a. Acesta este un simplu exercițiu      b. Aceasta este o adevărată poveste  
this is a mere exercise      this is a real story  
‘This is a mere exercise’      ‘This is a real story’  
a’ Acesta este un exercițiu simplu      b’. Aceasta este o poveste adevărată  
this is a exercise simple      this is a story true  
‘This is a simple exercise’      ‘This is a true story’

One should stress, however, that projection as a specifier and occurrence at the *n*\*-periphery is more than a disambiguating strategy. It *always* signals some interpretative content which may be characterized as quantificational and modal, these two labels being entailed by more specific ones like [emphasis], [prominence], etc. This is why not all adjectives may occur pre-nominally. In particular, relative adjectives do not, even if they *are* kind-level modifiers (6a). This is because, being based on nominal concepts, they are *inherently non-quantificational*, and thus ungradable, so they cannot be attracted to quantificational periphery phrases. Significantly, relative adjectives which develop gradable (quantificational) readings do appear at the *n*\*-periphery (6b):

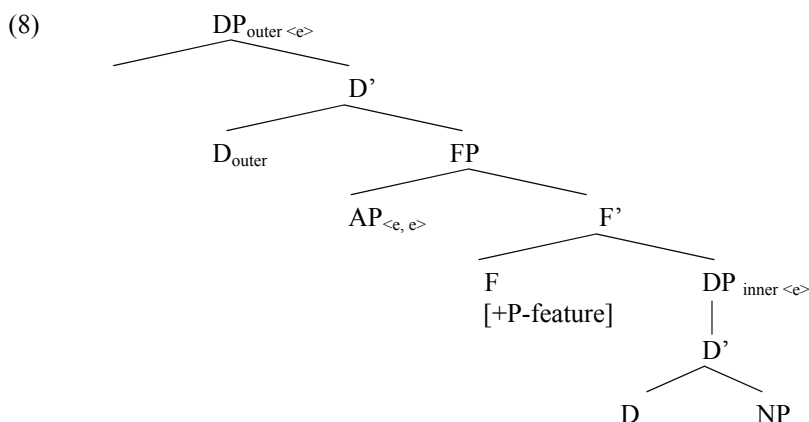
- (6) a. \*un elitist președinte      b. un fost foarte elitist președinte  
an elitist president      a former very elitist president

## 2.4. The *d*\*-periphery

The *d*\*-periphery is the syntactic space between the higher  $D_{outer}$  and the lower  $D_{inner}$ , containing FPs that check P-features. Adjectives merge at the D-periphery when they contextually incorporate relevant P-features. Unlike *n*\*-phase adjectives, which are concerned with classification and kind, *d*\*-periphery ones focus on modal *subjective* evaluation, (contrastive) topic/focus, specificity or other *judgments by the speaker*. As this list suggests, the features valued at the *d*\*-periphery also have a quantificational or modal component (cf. also Bouchard 1998). Examples are the italicized adjectives in (7a) and (7b), which occur to the left of intensional adjectives and cardinals at the boundary of the *n*\*-phase.

- (7) a. un *simpatic* [<sub>n</sub>\*fost prim-ministru] b. aceste *fenomenale* [<sub>n</sub>\*șapte legi]  
 a nice former prime minister these phenomenal seven laws

We claim that, in line with their position to the left of the nominal head, DP periphery adjectives are selected *specifiers*. Syntactically, they are *DP-adjectives* since they have a DP in their scope, as in (8):



Like all DP modifiers, *d*\*-periphery adjectives combine with the DP they have in their scope by functional application. They are functions that *map individuals onto individuals*, i.e., they have denotations of type  $\langle e, e \rangle$ . Since they combine with the DP by functional application, they are clearly *non-restrictive*. Pragmatically, they characterize the referent *object* as perceived by the speaker in context (cf. also Zamparelli 1993). The general characterization of DP peripheral adjectives is thus that they express context-bound properties of the object referred to as perceived by the speaker. These object-level properties are true of an object which *has already been identified and classified as to its kind* (cf. Stavrou 2001). The latter is the role of the lexical *n*\*-phase.

Support for configuration (8) comes from different sources. Kim (1997) shows that in head-final languages, like Korean and Japanese, there are two positions for adjectives: a pre-nominal (post-determiner) position (9a) and a pre-determiner position (9b) (examples from Kim 1997). These two positions correspond to the restrictive and non-restrictive readings of the adjectives. Kim argues that, in Korean, non-restrictive adnominal modifiers move overtly out of the scope of the determiner to [Spec, DP], while in head initial languages they do so covertly. The resulting configuration is quite similar to (8). The proposal here relies on the same intuition that non-restrictive modifiers are sisters to DPs. Kim's analysis is also adopted in Ticio (2003) for Spanish.

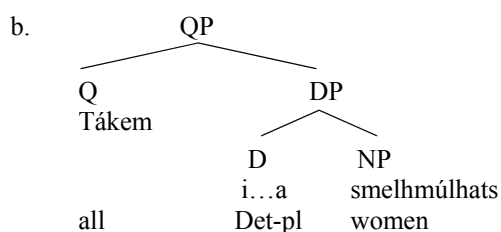


- (9) a. ku [keteran [<sub>NP</sub> namwu] (restrictive, sister to NP) (Korean)  
           the big tree  
       b. keteran [<sub>DP</sub> ku namwu] (non-restrictive, sister to DP) (Korean)  
           big the tree

An important aspect of configuration (8) is the split D-hypothesis itself. This raises the problem of the existence and role of the lower, often silent, D. One may claim that the lower D is simply required for  $\phi$ -feature agreement between the determiner and the noun in a sufficiently local configuration, as proposed by Laenzlinger (2005). Alternatively and preferably, it may be that only a subset of the features associated with D are valued in the lower head, while others are always valued in the higher head. Thus, it has been proposed (Ishane, Puskas 2001) that the [+definite] feature is valued in the lower D, while discourse-bound features like [+specificity] or [+deixis] are valued in the higher D.

In the theory of periphery adjectives that we have sketched, the lower D supplies the appropriate object-level  $\langle e \rangle$  denotation, since  $d^*$ -periphery adjectives have  $\langle e, e \rangle$  denotations, mapping individuals onto individuals. The higher D apparently quantifies over an  $\langle e \rangle$  entity (say, a context determined plural individual), rather than over the (whole) range of the nominal predicate. Situations like this have been discussed by Mathewson (2001), who notices that in languages like St'át'imcets, the structure of a generalized quantifier is always as illustrated in (10a): a quantificational element appears as sister to **a full DP**, containing an overt *plural* determiner. The configuration in (10b) is essentially similar to (8). In St'át'imcets, a generalized quantifier is always formed in two steps. The first is the creation of a DP of type  $\langle e \rangle$ , and the second involves quantification over the plural individual denoted by the DP (Mathewson 2001: 147).

- (10) a. tákem [ i smelhmúlhats -a]  
           all [Det-pl woman(Pl)- Det]  
           'all the women'



Mathewson (2001) believes that English is a disguised version of St'át'imcets, and that in both languages **quantifiers expect a sister of type  $\langle e \rangle$** , not of type  $\langle e, t \rangle$ . One option for the invisible lower determiner might be a **choice function** which returns a **contextually determined**  $\langle e \rangle$ -type plural individual,



over which the higher determiner/quantifier operates (cf also Winter 2005). Interestingly, Mathewson (2001) also suggests that an *iota* operator is another possibility for the semantics of the lower *D*. More research is needed to select from these formal options and to parameterize the choice of a solution. Finally, we argue however that the best evidence in favor of (8) is provided by double definite constructions or any other constructions where the postulated *D* positions are overtly filled (see below, section 3.).

## 2.5. The *d*\*- versus the *n*\*-periphery

In this section, we review a series of properties which favor the partition of the pre-nominal space into two (local) peripheral domains, an *n*\*- and a *d*\*-periphery. The syntactic and interpretative differences between (pre-nominal) adjectives discussed above offer indisputable support for the claim that there are two phases inside the *DP*.

### 2.5.1. Genericity

The lack of uniformity of the pre-nominal space is clearly shown by generic sentences. By assumption, in generic sentences adjectives must have kind-level interpretation. Indeed, in Romanian, *only intensional adjectives* may appear in generic sentences. This is natural since they are *inherent kind-level* modifiers:

- (11) a. **Foștii** miniștri sunt bogați      b. **Înalții** demnitari sunt bine plătiți  
       ‘Former ministers are rich’        ‘High officials are well-paid’  
       c. Un **bun** student nu face așa ceva  
       ‘A good student never does this’

But intensional adjectives are *n*\*-periphery constituents, therefore only *n*\*-periphery adjectives appear in generic sentences. In contrast, adjectives at the *DP* periphery, which have non-restrictive *object-level readings* and express the speaker’s subjective characterization, are excluded in generic sentences. Ordinary qualifying adjectives and relative adjectives are post-nominal in generic sentences, appearing in a position which allows or favors their inherent kind-level interpretation:

- (12) a. **\*Intelligentul** student este cel care învață  
       intelligent.the student is the one who learns  
       b. **Studentul** inteligent este cel care învață  
       student.the intelligent is the one who learns

### 2.5.2. *Specific indefinites at the d-periphery*

With indefinite DPs, the presence of qualifying adjectives in pre-nominal position forces the choice of the **specific reading** of the DP. In contrast, the post-nominal position is ambiguous as to specificity.

- (13) a. Cele cinci fete au făcut cunoștință cu un actor celebru [ $\pm$ specific]  
the five girls have made the acquaintance with an actor famous  
b. Cele cinci fete au făcut cunoștință cu un celebru actor [+specific]  
the five girls have made the acquaintance with a famous actor

The specific interpretation of *d*\*-periphery indefinite DPs induced by pre-nominal adjectives can only be *epistemic specificity*, in the sense of Farkas (2002). Epistemically specific DPs presuppose the existence of a referent, contextually salient to the speaker or to one argument of the sentence. Thus, while on the [-specific] reading of (13a) any famous actor would make the sentence true, (13b) is appropriately used only if the famous actor is one that is known either by the speaker or by the five girls the sentence is about. The object in (13b) is thus specific.

There are several properties that distinguish between indefinite DPs, function of the position of the qualifying adjectives. The pre-nominal position is compatible only with other factors that indicate specificity.

One construction inducing specificity with indefinite DPs is Double Object Marking (=DOM). Indefinite Accusative DPs which show DOM (i.e., are preceded by the functional preposition PE and are clitic doubled) are known to induce specific readings (cf. Dobrovie-Sorin 1994, Cornilescu 2000, Pană Dindelegan 2003, Mardale 2009, von Heusinger, Onea 2008). Expectedly, pre-nominal qualifying adjectives are also possible in DOM-ed indefinite DPs (14b). The pre-nominal adjective strengthens their specific, object-level reading. In contrast, after an intensional verb like *cere* ('require, need'), DOM (15b) and pre-nominal adjectives (15c) are both out.

- (14) a. Căutam **un actor celebru** [ $\pm$ specific]  
I was looking for an actor famous  
b. (Îl) caut PE **un celebru actor** al teatrului dumneavoastră [+specific]  
him-(I)am looking for PE a famous actor from your theatre  
(15) a. Rolul cere **un actor celebru** [-specific]  
the part needs an actor famous  
b. \*/?? Rolul îl cere PE **un actor celebru**  
the part needs PE an actor famous  
c. ??Rolul cere **un celebru actor** [+specific]  
the part needs a famous actor

A second example is offered by rhetorical questions. According to Bosque (2001), rhetorical questions license the non-specific reading of indefinites (16a, b). In these contexts the presence of a pre-nominal qualifying adjective in the indefinite DP makes the rhetorical reading impossible, and in fact, the question infelicitous (16a', b'):

- (16) a. Când (naiba) mi- ai recomandat tu un roman interesant?  
 when (the hell) to me-have recommended you a novel interesting  
 'When did you recommend me an interesting novel?' [-specific]  
 a'. ?\*Când (naiba) mi-ai recomanda tu un interesant roman?  
 when (the hell) to me-have recommended you a interesting novel  
 b. Cine mi- a recomandat măcar un articol interesant?  
 who to me-(he/she)has recommended at least an article interesting  
 'Who recommended me at least an interesting article?' [-specific]  
 b'. \*Cine mi- a recomandat măcar un interesant articol?  
 who to me-(he/she)has recommended at least an interesting article

Similarly, directive speech acts (which represent intensional contexts) are felicitous with non-specific indefinites (17a). Pre-nominal adjectives are not welcome in these contexts as well (17b):

- (17) a. Ar trebui să scrii un roman interesant [-specific]  
 You should SUBJ write a novel interesting  
 'You should write an interesting novel'  
 b. ?\*Ar trebui să scrii un interesant roman  
 You should SUBJ write a novel interesting

Finally, indefinite quantifiers, such as *niciun/nicio* ('no'), *vreun*, *orice* ('any'), which do not allow a specific reading due to their lexical meaning (18a, b), are not compatible with pre-nominal adjectives either (18a', b') (see Bosque 2001, for similar Spanish data):

- (18) a. Cumperi orice roman celebru b. N-am văzut niciun articol interesant  
 (you) buy any novel famous (I) haven't seen no article interesting  
 'You buy any famous novel' 'I haven't seen any interesting article'  
 a'. ??Cumperi orice celebru roman b'. \*N-am văzut niciun interesant articol  
 (you) buy any famous novel (I) haven't seen no interesting article

Pre-nominal adjectives in specific indefinite DPs are clearly non-restrictive. Since specific DPs pick up (contextually) unique individuals, the proposal we have made, that pre-nominal *d\**-periphery adjectives are <e, e> functions, is appropriate for indefinite phrases as well.

We may conclude that pre-nominal adjectives have distinctive functions in the two peripheries: they give rise to generic readings in the  $n^*$ -periphery and to specific readings in the  $d^*$ -periphery.

### 2.5.3. Lack of contrastive readings

Matushansky (2002) notices that emotive adjectives cannot be used to pick out an individual and cannot receive contrastive focus, concluding that “emotive modification is non-restrictive”:

- (19) \*The damned porter had locked the door, but the wonderful porter/one opened it up.

This remark about emotive adjectives can be generalized to all adjectives at the DP periphery. They are non-restrictive and non-identifying, hence they cannot (normally) be focused since they are presented as *presupposed* information. Compare:

- (20) a. Calculatorul **cel** VECHI se strică des, nu **cel** nou  
 computer.the *cel* ('the') old goes out of order often, not **cel** ('the') new  
 'The old computer goes out of order often, not the new one'  
 b. ?VECHIUL calculator se strică des, nu **cel** NOU  
 old.the computer goes out of order often, not *cel* ('the') new

### 2.5.4. Boundary constituents

The existence of distinct  $n^*/d^*$ -peripheries is confirmed by (functional) constituents that appear between the two, marking the boundary of the  $n^*$ -domain.

(i) Cardinal numerals and lexical quantifiers cannot be preceded by  $n^*$ -periphery adjectives:

- (21) a. acești importanți [ $n^*$  *șapte* oficiali]  
 these important seven officials  
 b. \*acești foști [ $n^*$  *șapte* oficiali]  
 these former seven officials  
 c. acești importanți [ $n^*$  *șapte* foști oficiali]  
 these important seven former officials  
 d. acești importanți [ $n^*$  *câțiva* oficiali]  
 these important few officials  
 e. \*acești foști [ $n^*$  *câțiva* demnitari]  
 these former few officials  
 f. acești importanți [ $n^*$  *câțiva* foști oficiali]  
 these important few former officials

(ii) The pronominal adjective *alt* ‘other’ is part of the *d\**-periphery and cannot be coerced into a *kind* denotation; like the cardinals, it cannot be preceded by intensional adjectives (*n\**-periphery adjectives):

- (22) a. doi alti **pretinși** specialiști      b. alti doi **pretinși** specialiști  
           two other alleged specialists                      other two alleged specialists  
       c. \*doi **pretinși** alti specialiști au fost concediați  
           two alleged other specialists have been fired

## 2.6. The isomorphic structure of the two peripheries

In this section we argue that the same kind of features are checked at both nominal peripheries. This proves the isomorphic structure of the *n\*/d\**-peripheries. The analysis explores the view that phases are *quantificational domains* (cf. Butler 2004). To illustrate this point, we examine pre-nominal past participles, which not only provide an argument for the existence of the *n\*/d\**-peripheries, but also indicate the kind of features checked at these peripheries. Our premise is that, at least in VO languages, not all participles may occur in a pre-nominal position. Felicitous pre-nominal participles give a clue to the structure of the nominal peripheries, if one assumes that a participial construction can be pre-nominal (i.e., can merge or move to the periphery) only if it checks a suitable P-feature. Furthermore, the relative position of the pre-nominal participles with respect to other modifiers indicates that they are either *n\**- or *d\**-periphery constituents.

As to *which participles occur pre-nominally*, a relevant parameter appeared to be Aspect. Thus, Embick (2004) argues that pre-nominal participles should be *stative* or *resultative*, but not *eventive*. More precisely participles with *episodic* readings cannot be pre-nominal. However, Sleeman (2008) discovers that, at least eventive participles modified by *recently* may be pre-nominal, even if they are not resultative. In fact, in addition to *recently*, many other modifiers (e.g. Rom. *deja* ‘already’, *cândva* ‘once’, *proaspăt* ‘newly’, *de mult* ‘for a long time’) may be added to participles of event verbs, producing readings suitable for pre-nominal occurrence of the participle (cf. Cornilescu 2004).

- (23) a. un *recent* schițat proiect /\* un schițat proiect  
           a recently sketched project / a sketched project  
       b. un *proaspăt* numit director /\* un numit director  
           a newly appointed director / an appointed director

Taking into account the semantic role of these modifiers, we suggest that the necessary property of a pre-nominal participle is that *it should be quantificational*. This property is true of statives by definition (properties true at all times), but it is also true of Embick’s resultatives and of the quantified eventives in (23) above, both of which probably describe what Ogihara (2004) terms *target state properties*.

These are properties that *appear to have resulted from a past event*. In other words, both the event and the result are evoked. The role of the modifier is to introduce in the discourse an earlier moment when the (target) state denoted by the participle, e.g., the state of ‘being sketched’ or ‘being appointed’, STARTS (Smessaert, ter Meulen 2004). Other means of suggesting the causing event which initiates the target state are manner adverbs, because of their agentive component:

- (24) o fastuos decorată cameră / ??o decorată cameră  
a richly decorated room / a decorated room

A stative reading is thus contextually constructed. Target state properties are *modal*, in the sense of modal logic, implying quantification over times/events/situations.

Having said these, we may conclude the following about pre-nominal participles:

(i) Participles occur pre-nominally only if they check a *quantificational* or *modal feature*. This means that these participles merge in (or move to) the specifier of a periphery QP [+quant].

(ii) Peripheries contain functional projection that check [+quant] and [+modal] features.

Observing now the distribution of the participle with respect to other modifiers, it may be shown that both the  $n^*$ - and the  $d^*$ - periphery contain such XP [+quant], since participial modifiers clearly appear in the  $n^*$ - as well as in the  $d^*$ -periphery. Notice in the first place that participles may occur inside intensional adjectives, i.e. clearly in the  $n^*$ -phase domain:

- (25) un fost cândva bogat **decorat** palat  
a former once richly decorated palace

At the same time, participles may occur outside intensional adjectives (and cardinals), i.e., at the  $d^*$ -periphery:

- (26) acest recent **reddecorat** fost palat prezidențial  
this recently redecorated former presidential palace

This distribution ((25) vs. (26)) indicates that participles are  $d^*$ - or  $n^*$ -periphery constituents, checking the same [+quant] feature in both phasal domains.

## 2.7. Conclusions so far

(i) There are three classes of adjectives with syntactically relevant denotations: (a) *object-level adjectives* (functions from objects to truth values);

(b) *relative adjectives* (intersective kind-level adjectives) – both object-level adjectives and intersective kind-level adjectives are restrictive, denoting a subset of the set denoted by the noun; (c) *intensional adjectives* (non-intersective kind level adjectives).

(ii) The evidence reviewed fully supports the claim that there are two distinct syntactic spaces between the higher D and the lexical N, namely a *d\**-periphery preceding an *n\**-periphery. Since peripheries are properties of phases, the existence of an *n\**-periphery and a *d\**-periphery confirms the hypothesis of two DP-internal phases, a lexical *n\**-phase and a functional *d\**-phase, checking the same type of quantificational features.

In the next section, we investigate a typical Romanian structure in detail, the adjectival article construction, proving that its properties can only be understood if it is viewed as a periphery construction. It will appear that despite its post-nominal position, the adjective is in fact a *pre-nominal periphery adjective*, which merges above the lower D position in a split DP framework, and is given a focus interpretation.

### 3. THE ADJECTIVAL ARTICLE CONSTRUCTION AND THE LINEARIZATION OF THE *N\**-PHASE

#### 3.1. What the Adjectival Article Construction (=AAC) shows about the architecture of the DP

*Double Definite Constructions*, available in Scandinavian, Balkan, but also Romance languages, are so-called because they realize the [+definite] feature twice (cf. Manoliu Manea 1968). The double definite construction examined in the paper is the Adjectival Article Construction (=AAC) in (27a), looking much like the Scandinavian (27b) (word order aside). In the AAC, there are two definite articles in the same DP: the definite article **-(u)l** suffixed on the noun, and the free-standing morpheme **cel**, preceding the adjective.

- (27) a.    elev-**ul**                      **cel**        cuminte                      (Romanian)  
              pupil DEF.M.SG            *cel*<sub>DEF-SG</sub> good M.SG  
              ‘the good pupil’  
       b.    **de-n**            gule        skjort-**a**                      (Norwegian, *apud* Julien 2003)  
              the<sub>DEF-SG</sub> yellow-W shirt-DEF.FEM.SG  
              ‘the yellow shirt’

The AAC also provides evidence for the existence of two phases inside the DP: a *nominal n\*-phase* and a *d\*-phase*. The distributional and interpretative properties of this double definite construction can only be explained if the *n\**-phase



is linearized before the D-head merges, so that only a suitable edge constituent (a definite noun (phrase)) is open to further syntactic processing; thus, the AAC provides evidence that  $n^*$  is a *domain of linearization*. The AAC is an attributive,  $d^*$ -periphery construction. Understanding the AAC requires the examination of the “adjectival article” **cel**, in its double role: as a definite article, in complementary distribution with the suffixal definite article **-(u)l**, and as an adjectival article in the AAC.

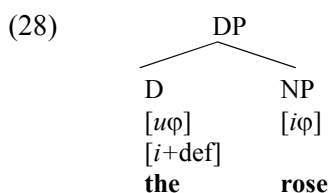
### 3.2. The Romanian definite articles *cel* and *-(u)l*. Definiteness as an (un)interpretable feature

#### 3.2.1. Definiteness as an (un)interpretable feature

**3.2.1.1.** We will assume that the Romanian D head is uninterpretable  $\phi$  and interpretable definite (i.e., [ $u\phi$ ,  $idef$ ]). The intuition to formalize is that to the extent that it is interpretable, definiteness is tied to “referentiality”, in as much as definite DPs (proper names, pronouns, definite and demonstrative descriptions) have *determined reference* (Farkas, von Stechow 2003, Farkas, De Swart 2007); i.e., they require *unique discourse referents*. It is the determiner which is responsible for introducing discourse referents in semantic theories like DRT (Kamp, Reyle 1993), while the NP supplies a restriction, and it is the D position of the DP which secures argumenthood in syntactic theories, from Longobardi (1994), to Giusti (1996, 2005) and Borer (2005). Thus, following the theoretical suggestions of Pesetsky and Torrego (2007), definiteness may be considered a nominal property which is uninterpretable on the noun ( $[udef]$ ) and interpretable on the determiner ( $[idef]$ ). Yet, definiteness may be *valued* on certain types of nouns, i.e., certain categories of nouns may be marked as  $[u+def]$  from the lexicon. In UG, proper names are inherently  $[+definite]$  and value the  $[idef]$  feature of D, as proposed in Longobardi (1994). Similarly, in languages where nouns morphologically vary for definiteness, like Romanian, nominal morphology *may* supply the value of the definiteness feature in D.

In sum, definiteness in D is interpretable and unvalued  $[idef]$ , and it will be valued by external merge of a lexical determiner or internal merge of an NP/DP which is morphologically definite, such as a noun suffixed by the definite article.

Assuming that feature valuation is consequent upon external merge of the article, definiteness valuation for a language that has free-standing definite determiners like English might look like the following:



The D head agrees with the N head valuing its  $\phi$ -features. At the same time the definite article values the [*idef*] feature of the D head. Valued uninterpretable features are marked for deletion and erased at the end of each phase.

**3.2.1.2.** The Romanian enclitic article **-(u)l** is a suffix (cf. Ortmann, Popescu 2000 a. o.), subcategorized for an N—/A— complement, with which it merges in the lexicon:

- (29) a.    trandafir**ul** (frumos)                      b.    frumos**ul** trandafir  
              rose.the (beautiful)                        beautiful.the rose

When the N is suffixed with the definite article, the result is a definite noun, therefore *an NP which is valued for definiteness, marked [u+def, i $\phi$ ]*. These features of the noun are used to value the corresponding (un)interpretable features of the D head, as shown below:

- (30)
- |               |                           |
|---------------|---------------------------|
| DP            |                           |
| D             | NP                        |
| [u $\phi$ ]   | [i $\phi$ ]               |
| <b>[idef]</b> | <b>[u+def]</b>            |
|               | <b>trandafir<u>ul</u></b> |
| <i>Agree</i>  |                           |

As mentioned, the definite article may also be suffixed to an adjectival head. Importantly, Romanian adjectives may be suffixed with the definite article only when the AP is *attributive* and *pre-nominal*; in such cases as shown above, the adjective merges as a *specifier of the NP*, so that the adjectival head is in a configuration of local agree with the NP, c-commanding the NP:

- (31)        frumos**ul** trandafir  
              beautiful.the rose  
              ‘the beautiful rose’

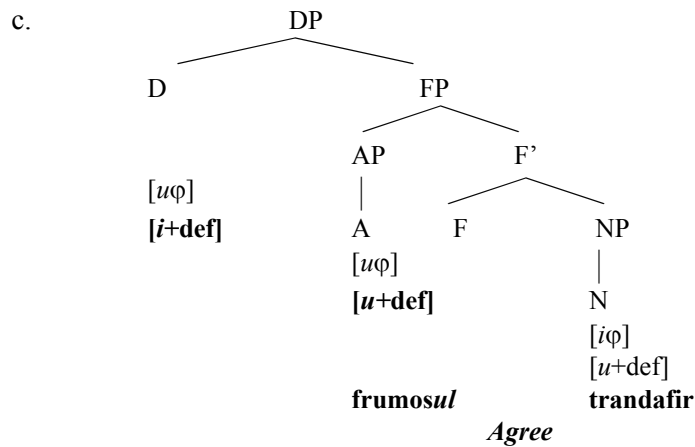
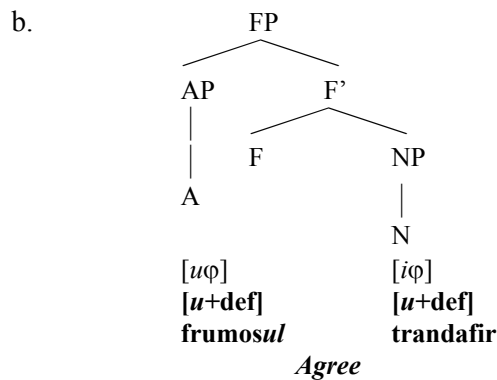
When the adjective is predicative (e.g., a post-copular predicative (32a) a post-nominal adjunct (32b)), the definite article is impossible:

- (32) a.    \*trandafir**ul** este frumos**ul**                      b.    \*trandafir(**ul**) frumos**ul**  
              rose.the    is    beautiful.the                      rose(.the)    beautiful

Definiteness is therefore an *agreement feature* for adjectives. We may assume that adjectives, by virtue of being  $\phi$ -complete, may also bear an [*udef*] feature which is never valued by adjectives themselves, but may be valued by a

definite noun. The adjective probes the nominal that it c-commands and will agree with the noun in definiteness and  $\phi$ -features, so that the adjective, which enter the derivation  $[u\phi, u\text{def}]$ , may end up being  $[u\phi, u+\text{def}]$ , its features being thus identical with the noun's. When this happens, phonology always realizes  $[u+\text{def}]$  on the *highest* copy below D, i.e., the highest noun or adjective below D, which will bear the definite article at PF. This highest copy is the one that values the interpretable definite feature of the D head. Notice also that the process of definiteness feature transmission assumes the form of a series of Agree relations ((33b) vs. (33c)).

- (33) a. frumosul trandafir  
beautiful.the rose



This description shows that in Romanian Agree is strictly local. Definite APs/NPs must end up immediately below the D, in a position where the  $[u+\text{def}]$  feature of the definite N/A is accessible to D head for *strictly Local Agree*, a characteristic property of the Romanian DP, obvious in the impossibility of (34),

where the definite N is trapped below an indefinite A. If the closest suffixed XP below the D is the valuer of the [*idef*] feature in D, and both the adjective and the noun are potential candidates for checking definiteness, it is always *the constituent on the edge* which is the identifier (see examples (35a, b) below). This is what creates the “second position clitic” effect: NPs *simply cannot move past adjectives in Romanian*, on pain of **violating minimality**. Pairs like (35) represent different derivations ((35a) has the derivation in (33) above; (35b) has the derivation in (36) – irrelevant details aside):

(34) \*frumos trandafirul

beautiful rose.the

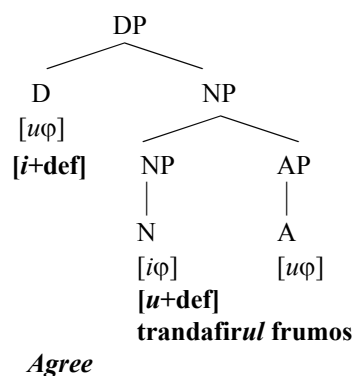
(35) a. frumosul trandafir

beautiful.the rose

b. trandafirul frumos

rose.the beautiful

(36)



### 3.2.2. The syntax of the definite article cel ('the')

3.2.2.1. The definite article **cel** is obligatory in front of quantifiers. Its c-selection feature is thus [---QP], it selects cardinals (37a), ordinal quantifiers (37b), lexical quantifiers (37c,d).

- |         |  |    |  |
|---------|--|----|--|
| (37) a. | <b>cei</b> șapte eroi<br><i>cel</i> seven heroes<br>'the seven heroes'         | b. | <b>cel</b> de-al doilea spectacol<br><i>cel</i> DE AL second show<br>'the second show' |
| c.      | <b>cei</b> câțiva elevi<br><i>cel</i> a few pupils<br>'the several schoolboys' | d. | <b>cei</b> mai buni studenți<br><i>cel</i> more good students<br>'the best students'   |

Predictable, **cel** is excluded if the noun has no prenominal modification, as in (38a), or if the noun is modified by an adjective, as in (38b), precisely because the noun and the adjective may themselves value the definiteness feature of the D head.

- (38) a. \***cel** student                      b. \***cel** înalt student  
       *cel* student                        *cel* tall student

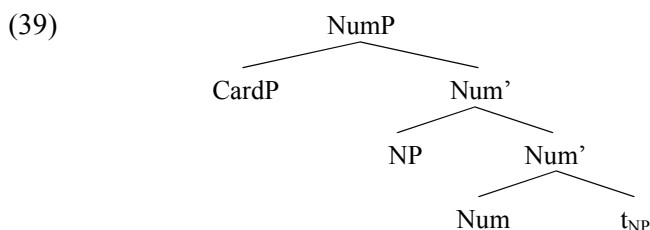
From this distribution, we retain that the definite article **cel** selects for *quantificational phrases*.

An understanding of the feature checking mechanism in these cases requires spelling out our assumptions on the syntax of cardinals and other quantifiers.

Recall that in the presentation of the  $n^*/d^*$ -phases above, we have shown that cardinals represent the left phase-boundary of the  $n^*$ -phase, while still being in the  $n^*$ -phase; on the other hand, the highest functional projection in the  $n^*$ -phase is NumP (cf. Tănase-Dogaru 2009). It follows that cardinals and other indefinites should merge as specifiers of the NumP, as also suggested in important work by Ionin and Matushansky (2006).

The assumption that cardinals and, more generally, indefinites merge in [Spec, NumP] might appear to be contradicted by the fact that demonstrably in Romance and other languages, there is NP movement up to [Spec, NumP] (cf. Cinque 2004a, Vulchanova, Giusti 1998). We propose that in such cases, the CardP merges in an outer specifier of NumP. This assumption is necessary to solve certain locality problems, as will appear below.

Taking stock of what was said so far, the structure of the Romanian NumP might look as below:



### 3.2.2.2. *Cel as a last resort*

We may now understand what forces the last resort insertion of **cel**. As already mentioned, the two definite articles, **cel** and **-(u)l** form a complementary set, with **cel** employed whenever there is no suffixed noun or adjective sufficiently close to the D head. The typical situation of this kind is that of an intervening quantifier, a CardP in particular, in [Spec, NumP].

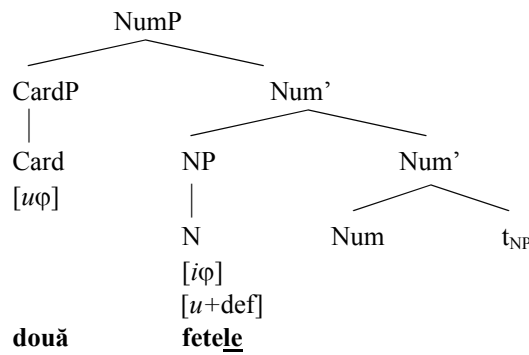
- (40) **cele** două fete  
       *cel* two girls  
       ‘the two girls’

The analysis of **cel** should show that, in the eventuality of an intervening quantifier, the suffixed article on a noun or adjective cannot value the [*idef*] feature

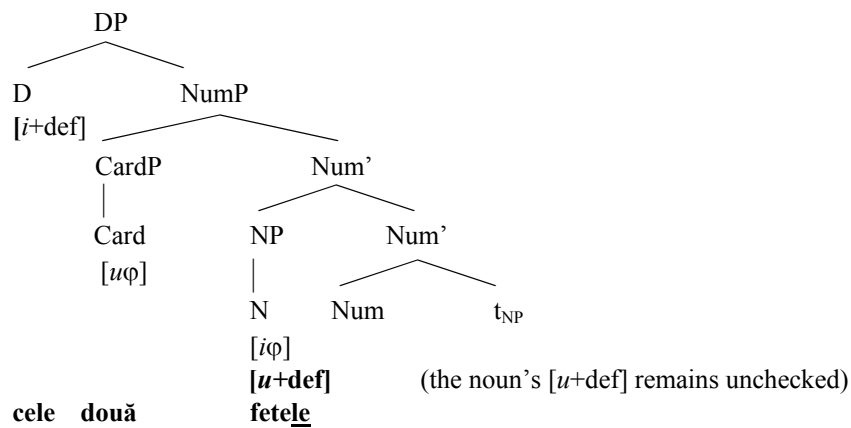
of the D head, so that this forces the last resort merger of the free standing definite article **cel**. Intuitively, **cel** is required because, unlike a pre-nominal adjective, the cardinal may not pass on the  $[u+def]$  feature of the noun. This may be because cardinals are not  $\phi$ -complete, lacking number variation, and the definite article may be realized only on  $\phi$ -complete heads, or because cardinals are not categorially  $[+N]$ , and the article is suffixed only to  $[+N]$  bases (nouns or adjectives). Be that as it may, cardinals which c-command the noun and agree with it do not come from the (Romanian) lexicon bearing a  $[udef]$  feature and therefore do not probe for it.

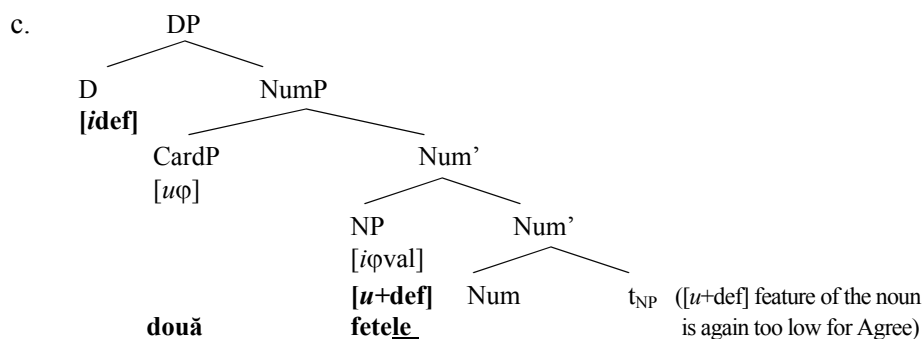
At the end of the lower  $n^*$ -phase, the cardinal containing DP has the structure in (41a). When the D head merges, its  $[idef]$  feature does not find a matching goal in the strictly local domain (i.e., the first specifier below D), so that the derivation crashes, whether **cel** is inserted or not. If **cel** is inserted (41b), it values the  $[idef]$  feature of D, which becomes  $[i+def]$ ; however the uninterpretable definite feature of the noun is too low for Agree, and the presence of an uninterpretable unchecked feature (i.e., the noun's  $[u+def]$  feature) leads to crash. If **cel** is not inserted, the  $[u+def]$  feature of the noun is again too low for Agree, and, moreover, the  $[idef]$  feature of the D is not valued either (41c).

(41) a.

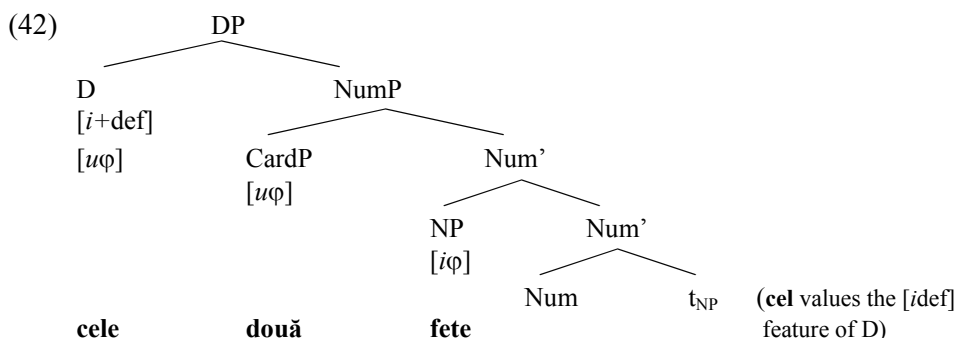


b.





In the well formed converging configuration (42), the noun is not suffixed by the definite article, so that **cel** must be inserted to value the *[idef]* feature of the D head, on the model of English (cf. (28) above). **Cel** is clearly *a last resort*, whose presence is triggered by the intervening QP phrase, which blocks the suffixal definite article too low for Agree.



### 3.2.2.3. Conclusions on prenominal **cel**

(i) Prenominal **cel** ‘the’ is a *last resort definite article* used when there is no definite NP/AP “close” enough to the D position to value its *[idef]* feature because another constituent, a QP for instance, intervenes.

(ii) **Cel** is a *free morpheme* which merges under D, as indicated by the fact that it must always be *above a quantificational* element in NumP; it is thus acquired as a higher determiner in D. It c-selects [--QP] and its featural make up is *[u+def, uφ]*.

### 3.3. Post-nominal **cel**: the Adjectival Article Construction (AAC)

In this section, we turn to the examination of **cel** in the adjectival article construction:



- (43)      **copilul cel** cuminte  
              child.the *cel* obedient  
              ‘the obedient child’

We propose that this construction is based on movement of the definite nominal head to the left periphery; movement is possible only if the definite noun (phrase) is the edge constituent after the linearization of the *n*\*-phase. As shown above, adjectives merge as specifiers or adjuncts to the left of the head in UG and adjuncts become post-nominal if the Adjunct Parameter is set for Adjunct Second, as it is in Romanian. The hypothesis that adjectives merge in an order that observes the hierarchy in Sproat and Shih (1988) (cf. Cinque 2004b, Shlonsky 2004 as well) and are then linearized explains the *mirror image order* in which adjectives appear in Romanian (44a), as compared to English (44b), when we have in view the relative order qualifying and relative (classifying) ones.

- (44) a.      comedie franceză excepțională/      \*?comedie excepțională franceză  
              comedy French exceptional      comedy exceptional French  
              b. exceptional French comedy /      \*French exceptional comedy

### 3.3.1. The distribution of *cel* in the AAC

We start by briefly describing the AAC. The first thing to mention is that the constituent preceding **cel** is a full, necessarily definite, DP, which may include a possessive argument (45a, c) or even a modifier (45d). This confirms the phrasal status of the constituent preceding the definite article **cel**.

- (45) a.      fiul (meu) (**cel**) mic      b.      fântana (**cea**) cu apă limpede  
              son.the mine *cel* little      fountain.the *cel* with clear water  
              ‘my little son’      ‘the fountain with clear water’  
              c.      elevii Mariei (?**cei**) despre care s-a vorbit foarte mult  
              students.the Maria<sub>GEN</sub> *cel* about whom SE has talked very much  
              ‘Maria’s students, about whom people discussed very much’  
              d.      bisericuța de lemn **cea** care a ars la cutremur  
              church.the of wood *cel* which has burned at earthquake  
              ‘the wooden church which burned at the earthquake’

As the name of the construction suggests, in the AAC, **cel** ‘the’ introduces a wide range of post-nominal modifiers: bare adjectives or complex APs (46), modifying PPs (47), relative clauses (48):

- (46)      studenții (**cei**) interesați (de lingvistică)  
              students.the *cel* interested (in linguistics)  
              ‘the students interested (in linguistics)’

- (47) a. casa (cea) de piatră b. congresul (cel) de la Paris  
 house.the *cel* of stone congress.the *cel* DE at Paris  
 ‘the house of stone’ ‘the congress in Paris’
- (48) bisericuța de lemn cea care a ars la cutremur  
 church.the of wood *cel* which has burned at earthquake  
 ‘the wooden church which burned at the earthquake’

**Cel** may also introduce non-finite verbal modifiers, provided that they exhibit nominal agreement (i.e., gender and number features). Thus **cel** frequently introduces reduced past participial clauses (49a); it also introduces agreeing present participles, obsolete in contemporary Romanian (49b), while it cannot introduce ordinary non-agreeing participles (49c).

- (49) a. cărțile (cele) expediate de Ion de la Paris  
 books.the<sub>Fem.Pl</sub> *cel* sent<sub>Fem.Pl</sub> by John from Paris  
 ‘the books sent by John from Paris’
- b. rana (cea) sângerândă  
 wound.the<sub>Fem.Sg.</sub> *cel* bleeding<sub>Fem.Sg.</sub>  
 ‘the bleeding wound’
- c. \*copilul<sub>Masc.Sg.</sub> cel dormind<sub>NON-AGREEING</sub>  
 child.the *cel* sleeping

The present participle shows an interesting correlation: the non-agreeing form (currently used) is possible in post-position, if **cel** is not used (50a); it is excluded as a pre-nominal modifier (50b) and as a post-nominal modifier with **cel** (50c). The agreeing form is possible in both of these positions: it may be used as a pre-nominal modifier (50d) and as a post-nominal modifier with and without **cel** (50e). This distribution shows that **cel** modifiers behave like pre-nominal rather than post-nominal modifiers.

- (50) a. rana sângerând b. \*sângerând rană  
 wound.the bleeding bleeding wound  
 ‘the bleeding wound’
- c. \*rana cea sângerând d. sângerândă rană  
 wound.the *cel* bleeding bleeding.the wound  
 ‘the bleeding wound’
- e. rana (cea) sângerândă  
 wound.the *cel* bleeding  
 ‘the bleeding wound’

For the limited purpose of this discussion, stress will fall on the adjectival modifiers introduced by **cel**, with only occasional reference to other types of modifiers. In terms of the classification of adjectives/modifiers discussed above,

the adjectives/modifiers introduced by **cel** are object-level DP-modifiers, taking a DP in their scope and combining with it by functional application (see below).

**Cel** also occurs with all kinds of QPs (cardinals, ordinals, lexical quantifiers). While in the previous cases **cel** is syntactically *optional*, with cardinals at least it is *obligatory* (51a), since cardinals never occur in post-nominal position otherwise (see the ungrammaticality of (51b)).

- (51) a. copiii **cel** trei (despre care am vorbit) b. \*copii(i) trei  
 children.the *cel* three (about whom we talked) children.the three  
 ‘the three children about whom we talked’

Unlike cardinals, ordinals may occur in post-nominal position provided that the noun is definite (52b). When they are preceded by **cel**, in both pre-nominal (52c) and post-nominal position (52d) ordinals require the functional preposition *DE* (see the ungrammaticality of (52e) and (52f)).

- (52) a. al doilea copil b. copilul al doilea  
 second child child.the second  
 ‘the second child’  
 c. **cel** *de*-al doilea copil d. ?copilul **cel** *de*-al doilea  
*cel* *DE* second child child.the *cel* *DE* second  
 ‘the second child’  
 e. \*copilul **cel** al doilea f. \***cel** al doilea copil  
 child.the *cel* second *cel* second child

The distribution of post-nominal **cel** with cardinals and ordinals is a strong hint that the post-nominal **cel** is, in fact, pre-nominal **cel**, except that the definite NP head has been attracted to a position preceding **cel**. A structure identical with the adjectival article construction (53a) is available in Scandinavian (53b) (discussed in Julien 2003), except for the position of the definite NP, which is in final position in Scandinavian, but in initial position in Romanian.

- (53) a. cămașa **cea** galbenă (Romanian)  
 shirt.the *cel* yellow  
 ‘the yellow shirt’  
 b. **den** gule skjorta (Norwegian, *apud* Julien 2003)  
*den* (~*cel*) yellow shirt.the  
 ‘the yellow shirt’

It is tempting to assume that the Romanian structures (53a) involve movement of the definite noun to [Spec, DP<sub>outer</sub>] across the adjective (54b), starting from a structure similar to the Norwegian one (cf. (54a)).

- (54) a. [DP<sub>outer</sub> **cea** [FP galbenă]<sub>F</sub> [DP<sub>inner</sub> cămaș**a**]]]  
           *cel*       yellow                   shirt  
       b. [DP<sub>outer</sub> cămaș**a** [D-**cea** [FP galbenă]]]  
           shirt.the       *cel*               yellow

The two overt articles roughly occupy the two D positions in the DP-periphery, with the definite NP in the specifier of the lower D<sub>inner</sub> and **cel** in the higher D<sub>outer</sub>: [DP<sub>outer</sub> **cea** [FP galbenă [DP<sub>inner</sub> cămaș**a**]]]. The definite NP reaches [Spec, DP<sub>inner</sub>] in order to value the latter's [i<sub>def</sub>] feature, and subsequently moves to [Spec, DP<sub>outer</sub>].

### 3.3.2. The interpretation of the AAC

Informally, modifiers introduced by **cel** express *identifying properties* (in the sense of Strawson 1950), and are both emphatic and contrastive. The property introduced by **cel** should be salient, *contextually accessible*. A property may be salient for various reasons: because it is perceptually accessible (*fata cea cu pălărie* girl.the *cel* with hat 'the girl with a hat', *cartea cea de acolo* girl.the *cel* over there 'the book over there'), because it is a familiar attribute of an object (*fiul cel mai mare* son.the *cel* more old 'the elder son'), or because it is a stereotypical property (a nickname, a generic attribute: *cerul cel albastru* sky.the *cel* blue 'the blue sky'). The selected property is presented as *familiar*, actually as *more familiar* than any other accessible properties.

Using the P-features above, **cel**-XPs are interpreted as contrastive elements (i.e., [+contr(astive)]), presumably representing contrastive foci. Following Lopez (2009), [+contr] is a quantificational feature, whose semantic role is always the same, and double: it signals opening up a domain of relevant contextual alternatives, and supplying as value the most salient of these alternatives. The feature [+contr] thus entails [+quant], and since the modifier headed by **cel** is a focus, the XP selected by **cel** is [+contr, +quant, -new].

A significant generalization emerges: the c-selection property of **cel** in all of its occurrences is unchanged: XP [+quant, +contr]. This property is lexically expressed in the pre-nominal construction, where **cel** is uniquely followed by constituents which are inherently quantificational and contrastive, and it is extended to phrases which may contextually "incorporate a quantificational P-feature like [+contr]". Following this line of thought, an important question arises: what is the domain over which **cel**-XPs quantify, i.e., what are the entities that contract the relevant [+contr] (quantificational) relation?

The distribution of **cel** shows that this adjectival article introduces modifiers, i.e., predicates. Predicates cannot be quantified over, unless they nominalize. In line with what has already been said above, we suggest that in the AAC, modifiers are interpreted as properties (i.e., they are nominalized). The intuitive difference

between *elevul cuminte* (student.the obedient ‘the obedient student’) and *elevul cel cuminte* (student.the *cel* obedient ‘the obedient student’) is that in the second case, the adjective expresses the identifying attribute of the pupil, rather than one attribute among others. The construction implies selection out of a range of attributes, which should be viewed as inducing a *pragmatic scale* (cf. Fauconnier 1975), where attributes are implicitly arranged in order of strength (how characteristic they are of the subject) or contextual saliency (how well they may serve for contextual identification). The relevant properties may be stereotypical ones (*cerul cel albastru* sky.the *cel* blue ‘the blue sky’), or contextually salient ones which may have an identifying function (*fiul cel mare* son.the *cel* old ‘the old son’, *băiatul cel din stânga* boy.the *cel* from left ‘the boy from the left (side)’). This property is relevant in the context, where it serves as the best identifier in the pragmatic scale of the known attributes. Through this contrastive, quantificational effect, the property introduced by *cel* is *emphatic*, rhetorical, as remarked by other researchers as well (GALR 2005/2008). Since nominalized properties are saturated entities, the mode of combination of the adjective/modifier with the noun cannot be *predicate modification*. It is *functional application*. Properties introduced by *cel* combine with a DP, always a definite description. The individual denoted by the description is viewed as representing a *property set* (cf. Montague 1974), the property introduced by *cel* being one of these properties, as shown below (55).

- (55) *băiatul cel din stânga*  
 boy.the *cel* from left  
 ‘the boy from the left (side)’  
 $\lambda P P$  (*băiatul*) (Q)  
 $\exists Q Q \in \lambda P \ \& \ Q(\textit{băiatul})$   
 $Q = \textit{din stânga} = \lambda x (\textit{din stânga}) (x)$

One may now understand the use of the agreeing participles (illustrated in (50) above) in the AAC. Agreement (number, gender) markers indicates nominalization, i.e., and adjectival (re)interpretation of the present participles. This is a consequence of the fact that in this construction, participles are properties, rather than sets.

We tentatively mention two types of data that might support the analysis:

- (i) The *cel* head selects only constituents whose form *shows them to be properties*, not simply sets (predicates): adjectives, agreeing gerunds/past participles. This is the function of the agreement requirement. It is significant that in this construction, locative and temporal PPs acquire an extra functional (meaningless) preposition, DE, whose role is that of turning the PP (a predicate) into a property, by nominalizing/adjectivizing these PPs.

- (56) a. casa este la mare                      b. casa **cea** de la mare  
           house.the is at seaside                house.the *cel* DE at seside  
           ‘the house is at the seaside’        ‘the house from the seaside’

(ii) A second fact we may speculate on is that **cel** cannot be followed by arguments of the nominal heads, presumably because argumental DPs do not have the right (property) denotation: *\*dependența cea de droguri* (dependence.the *cel* on drugs, intended meaning: ‘the dependence on drugs’).

### 3.3.3. The Derivation of the AAC

The analysis still relies on the split-D hypothesis presented above (cf. Aboh 2004, Ihsane, Puskas 2002, Laenzlinger 2005 a.o.). Assuming that adjectives merge in different positions in the DP, according to their denotation (cf. Cornilescu 2009, Svenonius 2008), we expect that there should be a class of adjectives which directly merge in the space between the higher and the lower D, on condition that they incorporate appropriate P-features (Chomsky 2001), in this case the [+contr], [+quant] features. These are the DP-modifiers internal to the DP, in the sense defined above in section 2.2.

In the derivation of an adjectival article structure like (57), the definite NP ends up in the lower [Spec, D<sub>inner</sub>] position, valuing the [*idef*] of the lower D<sub>inner</sub> head (see (58)):

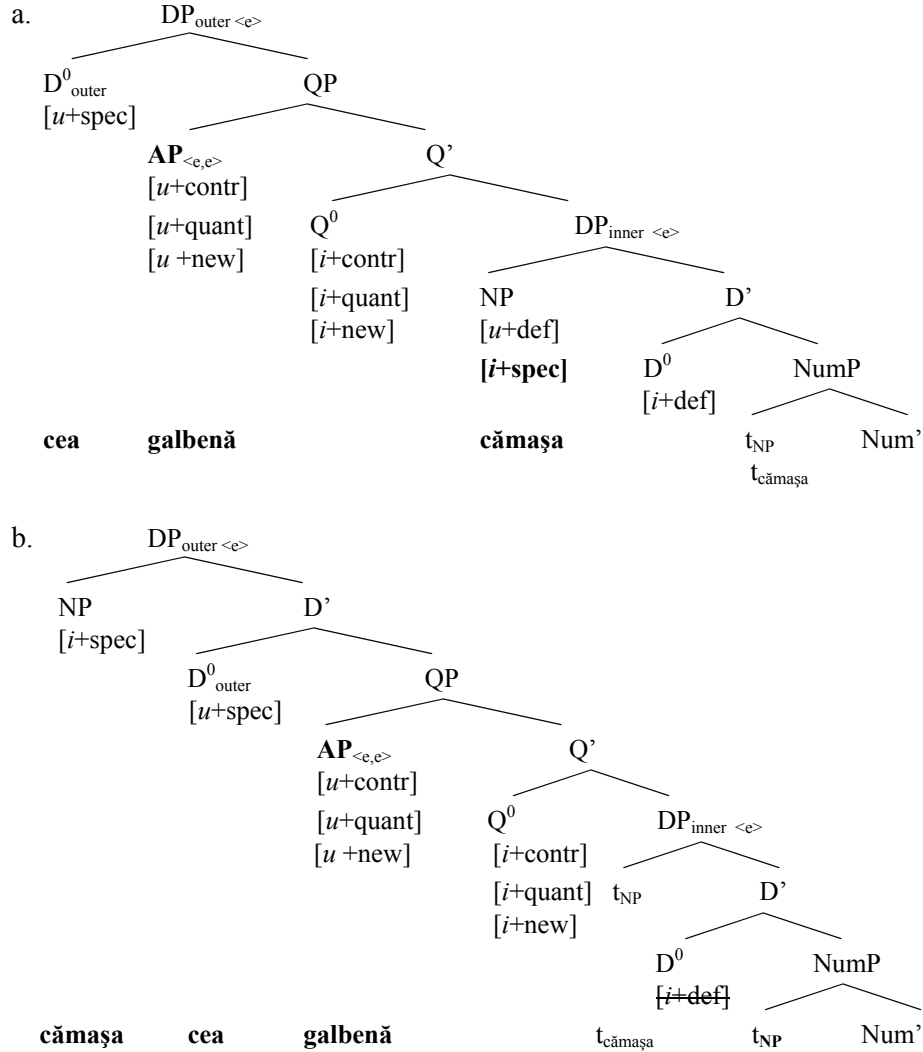
- (57) a. [DP<sub>outer</sub> **cea**            [FP galbenă            [DP<sub>inner</sub> cămaș**a**]]]  
           *cel*                      yellow                      shirt  
       b. [DP<sub>outer</sub> cămaș**a**            [D **cea**            [FP galbenă            [DP t<sub>NP</sub>]]]  
           shirt.the                      *cel*                      yellow

The AP [+contr] merges in a D-periphery position, as the specifier of a QP, whose head Q is [+quant, +contr, +φ] (58a). One may assume that the [*icontr*] feature is interpretable and unvalued on the Q periphery head, and that the AP, with the feature [*u+contr*], merges in this specifier to value the features of the head (i.e., [*icontr*] becomes therefore [*i+contr*]). Intuitively, such an analysis would imply that it is precisely by its periphery position (i.e. between the two D positions), directly after **cel**, that the AP signals its quantificational interpretation, and the formation of a pragmatic scale. On the other hand, given that the AP is in [Spec, QP], the definite NP [*u+def*] is too low to value the [*idef*] feature of the higher D head. **Cel** merges, as a last resort, in a configuration which satisfies its c/s-selectional requirements for a QP complement.

The definite NP subsequently raises to the left of **cel** [DP cămaș**a** [D **cea** [QP galbenă [DP t<sub>NP</sub>]]]], as in (58b). The reason cannot be the need to get rid of its [*u+def*] feature, since this feature has been marked for deletion after Agree with the lower determiner. We claim that the definite NP raises out of the lower

[Spec, D<sub>inner</sub>] position because it is attracted by an uninterpretable unvalued [specific] feature, i.e., [*uspecific*] in the higher D. Given the interpretation of the AAC presented above, specificity of the referent of the DP (cf. Heim 1982) is induced by the presence of the identifying property expressed by the AP.

(58)



Crucially, there is an essential condition needed for this derivation to go through. The derivation is possible only if a definite NP values the [*idef*] feature of D<sub>inner</sub>. This requires the definite NP to be an *edge constituent* after the linearization of the *n*\*-phase.



### 3.3.5. Consequences and conclusions to the analysis of the AAC

(i) If the adjectives in the **cel** construction are DP-periphery adjectives, the fully confirmed prediction is NP-adjectives (whether *n*\*-periphery adjectives or post-nominal adjectives) will not be possible.

a. Adjectives which are *always pre-nominal*, that is, periphery intensional NP-adjectives do not appear in the **cel** construction. The filter is syntactic: *n*\*-periphery adjectives occupy specifier positions above the NP, and the AAC is possible only if the definite NP is the edge constituent after the linearization of the *n*\*-phase:

- (59) a. \*copilul **cel** biet  
child.the *cel* poor (pitiable)

b. Adjectives which exhibit different readings pre-nominally and post-nominally show only the post-nominal reading in the AAC. This means that *n*\*-periphery interpretation are filtered out (compare a, a', and a'' below).

- |  |   |
|--|---|
| <p>(60) a. singura femeie<br/>unique.the woman<br/>'the only woman'</p> <p>a'. femeia singură<br/>woman.the lonely<br/>'the lonely woman'</p> <p>a''. femeia <b>cea</b> singură<br/>woman the <i>cel</i> lonely/*unique<br/>'the lonely woman'</p> | <p>b. o adevărată poveste<br/>a true story<br/>'a real story'</p> <p>b'. o poveste adevărată<br/>a story true<br/>'a true story'</p> <p>b''. povestea <b>cea</b> adevărată<br/>story.the <i>cel</i> true<br/>'the true story'</p> |
|--|---|

(ii) Significantly, *relative adjectives* are also excluded in the **cel** construction; the exclusion is *semantic*, since these adjectives are post-nominal and would not block ascension of the definite NP to [Spec, DP<sub>inner</sub>]. Relative adjectives are *NP-adjectives*, *kind-level constructions* rather than object-level constructions, as required for use at the *d*\*-periphery:

- |   |  |
|---|--|
| <p>(61) a. *comedia <b>cea</b> americană<br/>comedy.the <i>cel</i> American</p> | <p>b. *invazia <b>cea</b> germană<br/>invasion.the <i>cel</i> German</p> |
|---|--|

Thus, adjectives which have only NP-interpretations are excluded in the **cel** construction. This is in agreement with the suggestion that these adjectives are *DP-adjectives*.

(iii) Certain word orders are also correctly excluded. One prediction is that **cel**+AP *cannot be followed by cardinals* (62a). This is because in the lower phase, cardinals merge in an outer specifier of NumP, so that the definite NP cannot raise

past them to get to the lower [Spec, DP] position. This is indeed the case. Notice that in general, DP periphery APs may precede cardinals (62b), which are at the boundary of the *n*\*-phase:

- (62) a. \*elevale **cele** inteligente două      b. acele inteligente două eleve  
pupils.the *cel* intelligent two      ‘those intelligent two pupils’

When cardinals occur after **cel**, they directly merge at the *d*\*-periphery in the specifier the focus position, competing with adjectives for this position. They may merge as specifiers of the focus QP, since they are inherently quantificational. If they merge in the *d*\*-periphery, the definite NP may be the edge of the *n*\*-phase and move past the cardinals, as in the example below:

- (63) copiii      **cei** trei de care ți-      am vorbit  
children.the *cel* three of whom to you-(I)have spoken  
‘the three children about whom I spoke to you’

(iv) Arguments, whether specifiers or complements, are also excluded from the AAC (particularly when they are referential phrases).

- (64) a. \*dependența      **cea** de tutun      b. \*lipsa      **cea** de argumente  
dependency.the *cel* on tobacco      lack.the *cel* of arguments  
c. \*fiul      **cel** al lui Ion      d. \*cântatul      **cel** al cocoșului  
son.the *cel* of John’s      singing.the *cel* of the rooster’s

The reason for this exclusion is likely to be syntactic. Selected arguments merge inside the lexical N-projection to be thematically interpreted. Secondly, the definite noun in the adjectival construction must be the edge NP as shown by its checking definiteness on the lower cycle. Consequently both c-selected and s-selected arguments are too low to get to the *d*\*-phase, moving across the noun.

#### 4. CONCLUSIONS

At the end of this detailed analysis one may conclude that the post-nominal **cel** construction is a double definite *d*\*-periphery construction, introducing properties interpreted as contrastive foci. Modifiers in the post-nominal **cel** construction are DP-modifiers, combining with the DPs in their scope by functional application. Secondly, the syntax of the post-nominal **cel** construction presupposes linearization of the *n*\*-phase, so that the definite NP is the edge constituent and is in a position to ultimately raise to the left of **cel**. Thus, to the extent that linearization domains are phasal, Romanian provides evidence for an *n*\*-phase

inside the DP. On the other hand, additional evidence for the existence of a phasal  $n^*$ -domain distinct from the  $d^*$ -domain is provided by the behaviour of pre-nominal adjectives. Depending on their type, some pre-nominal adjectives manifest very different interpretative properties and have special distributional properties, facts which may be accounted for by assuming that some of these adjectives are in the  $n^*$ -phase, while others are in the  $d^*$ -phase.

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