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Romanian adjectives at the syntax–semantics interface

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Abstract: In this paper, we argue for the existence of two local domains (phases, cf. Chomsky 2001; 2009; Legate 2003, among others) inside the DP: the *n**-phase, parallel to the *v*P (as in Svenonius 2004), and the *d**-phase, parallel to the CP. Two acknowledged phasal properties are discussed. (i) The *n**/*d**-phases define their own peripheries: peripheries are essentially modal-quantificational spaces, as shown by the decomposition of Topic–Focus features recently proposed (Butler 2004; McNay 2005; 2006). (ii) Phases are assumed to be domains of linearization: after (internal or external) merge, syntactic objects are hierarchical, but not linear, so phases must be linearized before they are sent to PF. The distribution and interpretation of DP-internal adjectives is taken to be indicative of these two domains.

Keywords: DP-internal phases; interface properties; linearization; NP/DP-adjectives; modes of semantic combination

1. Introduction

1.1. Aim and claims

The syntax of DP-internal adjectives raises two related but distinct problems: the position of adjectives with respect to the head and the relative position of adjectives in groups containing more than one adjective. The difficulty in discussing these problems springs from the fact that adjectives represent a heterogeneous class, as shown by the fact that not all adjectives have the same distribution.

On the empirical side, we would like to provide evidence for the following claims:

(i) The interpretation of an adjective is derived from the range of its **denotations** (i.e., **semantic types**), and especially from the syntactic configuration where it occurs, which determines the choice among these

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denotations. The basic division is that between prenominal non-restrictive adjectives and largely postnominal restrictive adjectives. While prenominal adjectives are always non-restrictive, the postnominal space is not homogeneous and may also accommodate some non-restrictive interpretations; evaluative adjectives may be non-restrictive in both prenominal and postnominal position (e.g., Rom. *un grup de* ***copii excepționali/excepționali copii*** 'a group of exceptional children' does not pick the exceptional children out of the group, but rather qualifies the group as a whole) (for details, see Cornilescu & Dinu 2014).

(ii) All prenominal adjectives in Romanian are **periphery constituents**. This hypothesis is necessary to account for the marked interpretative contrasts that differentiate between the prenominal and postnominal interpretation of 'same' adjective. Adjectives appear prenominally only if they check a P-feature (= pragmatic feature), such as [quant(ification)], [modality], [evaluation], [emphasis], etc.

On the more theoretical side, we would like to show that the prenominal space is constituted of two regions, the *n**-periphery and the *d**-periphery. This hypothesis is motivated by the fact that, depending on their type, prenominal 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 prenominal adjectives are in the *n**-periphery, while others are in the *d**-periphery. The paper thus brings evidence for the existence of two local domains inside the DP, an *n**-phase, parallel to the *v*P (cf. Svenonius 2004), and a *d*-phase*, parallel to the CP. The following general properties of phases are assumed in the paper:

(i) Phases have peripheries, which are edge domains devoted to the checking of (quantificational) P-features. Our paper uses the interpretative properties of (prenominal) adjectives in order to delineate the structure of the two nominal peripheries.

(ii) We assume that phases are domains of linearization. Syntactic objects produced by external/internal merge are hierarchical, but not linear, so phases must be linearized before they are sent to PF. The linearization procedure adopted here is **recursive linearization** (cf. Kremers 2003). Linear order is derived at the end of each phase by means of recursive linearization, starting with the root node, and then applying it to subnodes. There are principles determining which sub-tree to linearize first. The linearization of a structure [Spec [Head Comp]] can be described using two principles (*ibid.*, 26): **Principle H(ead)**, which requires that heads are linearized first, and **Principle S(elected)**, which requires that selected ele-

ments are linearized first. If the ordering for a language is S > H, the linear order obtained is Spec > Comp > Head, whereas if the ordering is H > S, the resulting order is Spec > Head > Comp. Either way, however, **selected specifiers** precede heads. There is also an **Adjunct Parameter** (*ibid.*, 27) set either to Adjunct First (adjectives in English) or Adjunct Second (adjectives in Romance).

1.2. On nominal peripheries and P-features

The DP structure that we assume is the currently proposed one, as in Borer (2005) for instance. The following projections are relevant for the present analysis:

(1) DP > QP/NumP > NP

On the assumption that the DP is a phasal domain, 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 2005; Ihsane & Puskás 2001; Aboh 2004, among others). In the same vein, Laenzlinger (2005a;b; 2010) defines the d^*-periphery as a **split-D area**, between an internal $D_{determination}$, which basically checks agreement, and an external D_{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 $D_{internal}$ and $D_{external}$).

According to Chomsky (2000), the set of UG features also includes pragmatic features (= P-features) which may play a part in the derivation. 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 [±new], [±contr(astive)], [±quant], etc. By combining these, one defines varieties of foci and topics (see Choi 1999; Ward & Birner 2003; Bühring 2003; McNay 2006; Cornilescu 2007). For instance, the combination [+contr, +new, +quant] describes Contrastive Focus, while [+contr, −new, +quant] defines Contrastive Topic. 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 [quant] is thus often included in the structure of P heads, being part of more specific features like [focus], [topic], [emphasis], etc. Since peripheries are phasal edges, the analysis supports Butler's view that phases are quantificational domains (Butler 2004).

1.3. Outline

The outline of the paper is as follows: in section 2, we put forth a classification of adjectives that integrates three criteria (syntactic, ontological, and semantic-combinatorial); using these criteria, in section 3 we delimit the relevant classes of adjectives (qualifying, relational and intensional adjectives); sections 4 and 5 are devoted to the presentation of the two nominal peripheries, and in section 6 we contrast these two spaces by reviewing the properties which favour this partition; in section 7, we highlight the isomorphism of the two peripheries, bringing into discussion the properties of prenominal (past) participles; section 8 sums up our findings on the relative order of adjectives in Romanian, arguing for a more principled account of adjective ordering; finally, we draw the conclusions in section 9.

Adjectives are known to represent a heterogeneous class (see Cinque 2010), with subclasses exhibiting different syntactic and semantic properties. More often than not, a preliminary stage of any research on adjectives is an adjective classification from different perspectives.

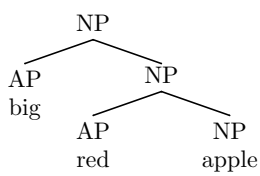
2. The classification of adjectives

The classification that we propose integrates three criteria: a syntactic criterion (whether the adjective combines with an NP or a DP), an ontological criterion (whether the adjective is object-level ⟨o⟩ or kind-level ⟨k⟩) and a semantic-combinatorial criterion (whether the adjective combines with the nominal by θ-Identification or by Functional Application).

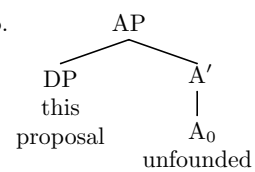
2.1. The syntactic criterion

From a syntactic point of view, one may distinguish between NP- and DP-adjectives, basically in terms of the adjective's sister (cf. Larson & Marušič 2004; Cornilescu 2006). NP-adjectives combine with an NP constituent, as in (2a). DP-adjectives combine with a DP constituent, as shown in (2b).

(2) a.



b.



NP-adjectives are **attributive**: *big red ball*. According to Baker (2003), whose view we share, "adjectives also have an option that is unique to them: that of being merged directly with the head noun, without functional structure mediating the relationship" (*op.cit.*, 193). Since functional structure is not required, attributive NP-adjectives should merge as **adjuncts of the NP**, essentially as in (2a) above. As for DP-adjectives, the best example is that of predicative adjectives, defined as adjectives which merge as **small clause predicates** and combine with **DP subjects**, as in (2b). One major claim of this paper is that DP-adjectives also occur in other positions than that of small clause predicate. In particular, DP-adjectives may be internal to the DP (see below section 5).

2.2. The ontological perspective

Many aspects of the syntax and interpretation of the adjective may be understood by a more careful consideration of the adjective's denotation. This is traditionally presented either as $\langle e, t\rangle$ (functions from individuals (notation e) to truth-values (notation t)) for adjectives like *square, solid* or, for intensional adjectives like *former, alleged* as $\langle\langle e, t\rangle,\langle e, t\rangle\rangle$ (functions from nominal denotations into nominal denotations), assuming that the denotation of an NP is $\langle e, t\rangle$. This position proves to be too coarse, and thus inadequate, so that a **finer-grained semantic partition** is needed. Since adjectives typically combine with NPs, the semantic partition of adjectives should start from an examination of the range of NP denotations.

The ontology that we assume is Carlsonian (cf. Carlson 1977): individuals are either objects, or kinds. **Objects** are individuals of type $\langle e\rangle$, canonically realized as DPs (e.g., *this dog*); **kinds** are individuals of type $\langle k\rangle$, canonically realized as NPs or DPs (*Dogs bark/The dog barks*). Consider the range of NP denotations now. As shown by Baker (2003), it is inconvenient to treat nouns, intransitive verbs and adjectives alike, as basically first degree predicates, which denote $\langle e, t\rangle$ functions, since, unlike verbs and adjectives, nouns are primarily referential. They are entity-denoting ($\langle e\rangle$), and it is this property that explains plural morphology, as well as the combination of nouns with articles and quantifiers. Baker assumes that nouns primarily denote kinds $\langle$k$\rangle$, which are themselves *sui generis* entities (Carlson 1977).

Kinds are structured individuals; they have object-level realization. Properties which are true of objects realizing the kind are also true of the kind, while most properties true of the kind are true of its realization:

if P applies to objects and K denotes a kind, then $P(k) = \exists x[k(x) \wedge P(x)]$ (Chierchia's 1998, 34 **Derived Kind Predication Rule**).

While the NP canonically designates kinds, the NP has a family of systematically related denotations (see Partee 1987; Pană Dindelegan 1992; Chierchia 1998): the NP may denote a kind $\langle k \rangle$, an object-level predicate $\langle e, t \rangle$, or a kind-level predicate $\langle k, t \rangle$. The one denotation that is excluded is denotation of an object-level individual, which is the denotation type canonically associated with the DP. The Romanian examples below illustrate these possibilities.

(3) a. **probleme de fizică**/ **carne de pasăre**/ (caut) **casă** $\langle k \rangle$
problems of physics/ meat of chicken (I'm looking for) house

b. **Trandafirul** este floare. $\langle k, t \rangle$
rose.the is flower
'The rose is a flower.'

c. Ion este **inginer**. $\langle e, t \rangle$
Ion is engineer
'Ion is an engineer.'

Notice that phrases like *acești câini* 'these dogs', *aceste flori* 'these flowers', etc. are systematically ambiguous between the set of individuals realizing the kind 'dog (k)' or 'flower (k)' and set of kinds having the property 'dog (k)' (i.e., *Alsatian*, *Cocker*, etc.) or 'flower (k)' (i.e., *rose, tulip*, etc.). Given the variety of nominal denotations, adjectives which **directly** combine with NPs are **sensitive to the nominal denotation**, so they too realize several denotations, **systematically related to the nominal ones**.

Therefore, there are **object-level adjectives**, which denote **properties of objects** and have $\langle e, t \rangle$ denotations (4a) and **kind-level adjectives** (cf. McNally & Boleda 2004), which denote **properties of kinds**, and have denotations of type $\langle k, t \rangle$, as in (4c). The hallmark of object-level adjectives is the possibility of a proper name subject (4a). Kind-level adjectives do not accept proper name subjects, as apparent in (4b) below. This semantic fact is valid cross-linguistically. Kind-level adjectives accept as subjects DPs that have kind-level readings as shown in (4c), or at least DPs that may supply kind-level information (4d).

(4) a. Ion$_{\langle e \rangle}$ este **înalt**$_{\langle e, t \rangle}$
John is tall
'John is tall.'

b. *România$_{\langle e \rangle}$ este **naţională**$_{\langle k, t \rangle}$
Romania is national

c. Conflictele$_{\langle k \rangle}$ între țări pot fi **teritoriale**$_{\langle k, t \rangle}$.
conflicts.the between countries may be territorial
'The conflicts between countries may be territorial.'

d. [Acest conflict] este strict **teritorial**$_{\langle k, t \rangle}$.
this conflict is strictly territorial
'This conflict is strictly territorial.'

A large number of adjectives have kind-level and object-level readings, a well-known example being *beautiful dancer*. On the object-level interpretation, *beautiful* characterizes the referent of *dancer*; on the kind-level reading it refers to a kind of *dancer*, namely 'one that dances beautifully'. Note that the ambiguity of the adjective survives in predicative position, as seen in (5). What we have said so far is not enough to account for the ambiguity of *beautiful* in this case, since it cannot be claimed that the subject phrase in (5a), *the dancer*, denotes a kind. Rather what happens is that the kind denotation, *dancer*, is retrieved from the object-denoting subject phrase and it may combine with the kind-level reading of the adjective. The two readings of (5a) are represented as below, in (5b) and (5c):

(5) a. The dancer is beautiful.

b. $\iota x_o[\text{dancer}(x_o)]$ $(\text{beautiful}(x_o))$

c. $\exists k.\iota x_o[k((x_o))]$ $(\text{dancer}(k) \wedge \text{beautiful}(k))$

Accordingly, representation (5b) says that there is a unique contextually salient individual, who realizes the kind k, and the kind k has the properties, 'dancer' and 'beautiful'. When the adjective is kind-level, it coerces the choice of a translation of type (5c) over one of type (5b). Note that in both (5b) and (5c) the subject has object-level reading, denoting a unique context given individual. The fact that kind-level adjectives do not take proper name subjects follows from the fact that **no kind denotation can be coerced out of a proper name**.

We conclude that the distinction between object-level and kind-level adjectives is relevant.

2.3. 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, the rule by means of which adjectives combine with the NP or DP constituent which is in

their scope. Two modes of combination are known: Functional Application and Predicate Modification (θ-Identification in Higginbotham 1985).

(6) a. **Functional Application** (Heim & Kratzer 1998, 44)
For a $\alpha \in D_{\sigma}$, $\beta \in D_{\langle \sigma, t \rangle}$ and γ such that γ immediately dominates both α and β, $[[\gamma]] = [[\beta]]([[\alpha]])$

b. **Predicate Modification** (*idem.*, 65)
For a $\alpha \in D_{\langle e, \sigma \rangle}$, $\beta \in D_{\langle e, \sigma \rangle}$ and γ such that γ immediately dominates both α and β, $[[\gamma]] = \lambda x\ [[\beta]](x) \wedge [[\beta]](x)$.

Predicate Modification combines predicates of **the same-level**, i.e., having **the same denotation**, by means of **set intersection** (the conjunction of predicates). Adjectives that may combine with NPs by predicate modification are **intersective.** For intersective adjectives, a sentence of type 'this is an AN', endorses the inferences 'this is A' and 'this is N', as illustrated below:

(7) a. red ball $\rightarrow \lambda x[[\text{red }]](x)$ and $[[\text{ball}]](x)$
b. former king $\rightarrow$ *$\lambda x[[\text{former }]](x)$ and $[[\text{king}]](x)$

Not all adjectives are intersective (cf. Bolinger 1967 and subsequent work). Following Kamp (1975), non-intersective adjectives fall into two classes: intensional adjectives and subsective adjectives (see 3 below).

Functional Application combines constituents that have **denotations of different types**, such that one of them, the function, takes the second for its argument. Thus in (8) the object-level $\langle e, t \rangle$ adjective *tall* combines with its *e*-type subject *John* by Functional Application. More generally, **DP-adjectives** always combine with their argument by Functional Application.

(8) $\text{John}_{\langle e \rangle}$ is $\text{tall}_{\langle e, t \rangle}$

Similarly, adjectives like *former, alleged* (i.e., **intensional** or reference modification adjectives) are second order functions (functions that map properties onto properties, i.e., functions of type $\langle\langle e, t\rangle, \langle e, t\rangle\rangle$). The adjective takes the N(P) (of type $\langle e, t \rangle$) as its argument. Therefore, they combine with NPs by Functional Application, as shown in (9):

$[\text{former}_{\langle\langle e, t\rangle, \langle e, t\rangle\rangle}[\text{king}]_{\langle e, t\rangle}] \rightarrow \lambda x[[\text{former}][\text{king}]](x)$

It is important that intensional adjectives are not **subsective**, i.e., the A(N) set may, but need not be a subset of the entities denoted by N. The inference from 'this is an A(N)' to 'this is an N' does not (always) hold (*he*

is a presumed genius ≠ *he is a genius*). Nor can one infer 'this is A' from 'this is an A(N)' (*he is a presumed genius* ≠ **he is presumed*).

Subsective adjectives are functions that map sets onto subsets. Therefore, putting it informally, they endorse the inference from 'this is an AN' (10a) to 'this is an N' (10b), without also endorsing the inference from 'this is an AN' (10a) to 'this is A' (10c).

(10) a. He is a rural policeman.
b. He is a policeman.
c. *He is rural.

Since intersective adjectives and subsective adjectives denote subsets of the set denoted by the noun, these classes of adjectives are known as **restrictive adjectives**, and in Romanian they are always postnominal.

3. Some relevant adjective classes: the syntax of postnominal adjectives

Using the properties above, it is possible to characterize several classes of adjectives, while also addressing the problem of their syntax. The general point to make is that of the strong correlation between the syntactic configuration where the adjective merges and its semantic interpretation. We start with the following well known classes: relational adjectives (Rel-As) such as *rural, German*, qualifying adjectives (Qual-As) like *hot, heavy*, and intensional adjectives (Int-As) like *former, alleged.*

3.1. Comparing Rel-As and Qual-As

The term **relational adjective** is currently used in a morphosyntactic acceptation, designating adjectives derived from nouns or based on nominal concepts and having properties derived from this very fact. The discussion of relational adjectives was centred around ethnic or referential adjectives (*American, German*), but was gradually extended to all adjectives derived from nouns (*monumental*) or based on nominal concepts (*oral, legal*). In the latter case, the base noun is not morphologically available, since only the derived adjective was borrowed.

Rel-As are often opposed to Qual-As, in terms of their meaning and syntactic properties (cf. Demonte 1997; Knittel to appear). In particular, they are ungradable e.g., *sistem solar* 'system solar/solar system' vs. **sistem mai solar* 'system more solar'. Qual-As represent the most typical

adjectival class; they express a single property of the noun (*heavy, hot*). They are gradable dimensional adjectives.

3.1.1. The properties of Rel-As and Qual-As

Semantic properties

Rel-As are *subsective* and denote subkinds (Kamp & Partee 1995), i.e., they endorse the inference 'AN is N', but not 'AN is A':

(11) a. Luceafărul este un **poem romantic**.
Luceafărul is a poem romantic

a_1. Luceafărul este un **poem**.
Luceafărul is a poem

a_2. *Luceafărul este **romantic**
Luceafărul is romantic

b. Ion este **polițist** **rural**.
John is policeman rural

b_1. Ion este **polițist**.
John is policeman

b_2. *Ion este **rural**.
John is rural

All Rel-As are **classificatory**, including thematic ones (Knittel to appear, as opposed to Bosque & Picallo 1996; Marchis 2010). They all answer the question *ce fel de?/ce tip de?* 'what kind/sort of?'.

In contrast, Qual-As are **intersective**, i.e., they endorse both of the inference 'AN is N' and 'A + N is A'. They represent appropriate answers to questions introduced by *cum?* 'how?'.

(12) a. Alex este un **copil chinuit**.
Alex is a child tormented

a_1. Alex este (un) **copil**.
Alex is a child

a_2. Alex este **chinuit**.
Alex is tormented

It appears that Qual-As and Rel-As both endorse the inference 'A + N is N'. In other words, Qual-As and Rel-As are **restrictive**.

Gradability

Qual-As are gradable (13b) while Rel-As do not have degrees of comparison (13d):

(13) a. producţie bogată
production rich

b. producţie mai bogată
production more rich

c. producţie mineralieră
production mineral.SUFF-ADJ

d. *producţie mai mineralieră
production more mineral.SUFF-ADJ

Adverbial modifiers

Both Rel-As and Qual-As accept adverbial modifiers, but these modifiers are different. Qual-As (14c) are typically modified by degree modifiers (*foarte* 'very', *prea* 'too', *extrem de* 'extremely', *mai puțin* 'less', *incredibil (de)* 'incredibly', *uimitor de* 'astonishingly', etc.), which are excluded with Rel-As (14a–b):

(14) a. *Producția de anul acesta a fost **prea/incredibil de legumicolă**.
production.the of year.the this has been too/incredibly vegetable

b. Titanicul era un vas **oceanic/** ***foarte** **oceanic**.
Titanic.the was a ship oceanic/ very oceanic

c. o fată **foarte/extrem de/uimitor de** frumoasă
a girl very/extremely/astonishingly beautiful

Knittel (to appear) discovers that there is a category of adverbs which "restrict the span of the noun", and may appear with Rel-A. Therefore, these adverbs would be "category hedges" in the terminology of Lakoff (1987). Probably Fr. *strictement*/Rom. *strict* 'strictly' is a category hedge on Fr. *famille*/Rom. *familie* 'family', as testified by (15). Other adverbials, such as Rom. *tipic* 'typically' or *mai ales* 'especially' are included in this class, as in (16).

(15) a. une reunion **strictement familiale** (French, *apud* Knittel to appear)
a reunion strictly familial

b. o reuniune strict familială (Romanian)
a reunion strictly familial

(16) a. o maladie **tipic bovină**
a disease typically bovine

b. din perioada **mai ales cuaternară**
from period.the especially quaternary

In conclusion, Rel-As admit adverbial modification that does not express degree, since they are not gradable.

Occurrence with the adjectival article *cel* 'the'

A property typical of Romanian is that, unlike Qual-As, Rel-As cannot be preceded by the adjectival article *cel* 'the' (see Cornilescu & Nicolae 2011, 56-65 for a detailed presentation of the adjectival article construction):

(17) a. Dumnezeu **cel mare**
God CEL great
'God Almighty'

b. *materialul **cel nisipos**
material CEL sandy

The predicative use

Qual-As are freely used in predicative position, while Rel-As avoid the predicative position or are severely constrained when they are used predicatively.

(18) a. Producţia este **bogată**.
production.the is rich

b. ?Producția este **cerealieră**.
production.the is cereal.SUFF-ADJ

Bolinger (1967) is the first to insist that relational adjectives are like intensional ones, in that they cannot appear in predicative position.

It is true that there are important constraints on the predicative use of Rel-As. First, as shown in the examples above and below, they do not take proper names as subjects. This immediately follows from their being **kind-level constructions**, as noticed by McNally & Boleda (2004). Since Rel-As typically denote subkinds, their subject must be able to supply the required kind information. Thus, Rel-As in predicative position denote distinctive properties of kinds, i.e., properties indicating subkinds.

(19) a. *Ion este **teritorial**.
John is territorial

b. Conflictul este **teritorial**.
conflict.the is territorial

(20) a. *Romania este națională.
Romania is national

b. Teritoriul Romaniei este **național**.
territory.the Romania.GEN is national

It is not enough for the subject to contain kind-level information. Other conditions are also required for the adjective to function predicatively. Knittel (to appear) mentions the following means of licensing Rel-As in predicative position:

(i) The presence of a modal verb may license the subkind interpretation, as shown by the contrast between (21) and (22a). As shown by (22b), nouns are the vehicles that convey the kind reading.

(21) Tuberculoza poate fi **pulmonară**.
tuberculosis may be pulmonary

(22) a. *Tuberculoza este **pulmonară**.
tuberculosis.the is pulmonary

b. Tuberculoza este o boală **pulmonară**.
tuberculosis is a disease pulmonary

(ii) Adverbs and adverbial phrases such as *strict* 'strictly', *tipic* 'typically', *în principal* 'mainly', etc. sharpen the subkind interpretation:

(23) Veniturile acestei țări sunt în principal/strict **comerciale/turistice**.
incomes.the these.GEN country.GEN are mainly/strictly commercial/touristic

(iii) Predicative Rel-As are also licensed under contrastive, identificational focus:

(24) Acest palat este **regal**, nu **imperial**.
this palace is royal not imperial

While so far, following common practice, we have also used a morphological criterion to define Rel-A and Qual-A, claiming that the former are based on nominal concepts or nouns (see Fábregas 2007), we should insist on the fact, amply shown by Knittel (to appear), that many Qual-As can also be

used as Rel-A and vice versa. Thus, the adjective *alb* 'white', in the NP *vin alb* (wine white 'white wine') has most of the properties listed so far: it is ungradable (25), it answers the question *ce fel de?* 'what kind of?', as in (26), it denotes a subkind, and it cannot take a proper name as subject (27).

(25) a. vin **alb**
wine white

b. *vin mai **alb**
wine more white

(26) Speaker A: Ce fel de vin ați comandat?
'What kind of wine did you order?'
Speaker B: (Vin) **alb**.
wine white

(27) *Feteasca este **albă**.
Feteasca(FEM) is white.FEM

The reverse situation is also common. Noun-based adjectives, which are Rel-As, may exhibit the properties and thus the interpretations typical of Qual-As, provided that there are modifiers of degree which shift the type of the adjective from relational to qualifying, as shown by the parallel tests below:

(28) a. comportament **elitist**
behaviour elitist

b. comportament foarte/și mai **elitist**
behaviour very/more elitist

(29) Speaker A: Cum se comporta?
'How was he behaving?'
Speaker B: **Elitist**/Avea un comportament **elitist**.
elitist/(he) had an behaviour elitist

(30) Comportamentul este **elitist**.
behaviour.the is elitist

Knittel (to appear) proposes to include all subkind uses in a class of **taxonomic adjectives**. We agree that Rel-As have qualifying uses and the other way around. Nevertheless, the morphology of the two adjective classes should not be ignored. In the first place, the nominal origin of Rel-As

(for which see Fábregas 2007), partly explains their propensity to stay closer to the head and their tendency to form compounds with the head. More significant still is another difference that we have not mentioned so far: Rel-As with a nominal basis are strictly postnominal, while Qual-As may occur prenominally as well (see below). Knittel notices that there are instances where an adjective with a subkind interpretation nevertheless appears prenominally. All the examples she quotes for French however are examples of Qual-As (*big, small*, etc.) that are coerced into relational uses. To put it differently, only morphologically Qual-As appear prenominally. The same is true for Romanian:

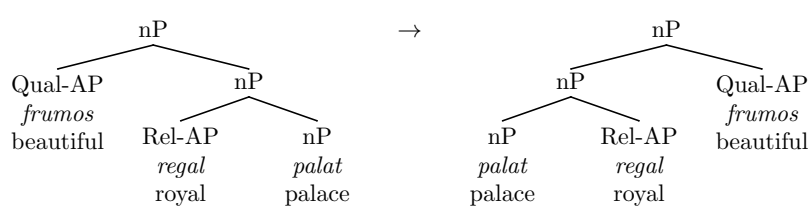
(31) a. Le **grand** panda est une espèce menacée. (French, *apud* Knittel to appear)
the big panda is a species endangered

b. **Marele** panda este o specie amenințată. (Romanian)
big.the panda is a species endangered

3.1.2. On the syntax of DP-internal Rel-As and Qual-As

We have concluded that both Qual-As and Rel-As have predicative uses, felicitously appearing after the copula. Since they appear as predicates, both Qual-As and Rel-As denote functions from individuals to truth, either object-level functions (i.e., $\langle e, t\rangle$) or kind-level functions (i.e., $\langle k, t\rangle$). Since nouns too may denote functions from individuals to truths, Qual-As and Rel-As combine with NPs by direct modification in the sense of Sproat & Shih (1988). Syntactically, as shown by Baker (2003) quoted above, direct modification is best viewed as left-adjunction. As everywhere in Romance, adjectives are typically postnominal in Romanian too. According to the linearization theory adopted in this paper (see 1.1.), languages like English and Romanian differ in terms of the Adjunct Parameter: English is an **Adjunct-First language**, with uniformly prenominal adjectives, while Romanian is an **Adjunct-Second language**. For reasons already explained, Rel-As are closer to the head; consequently, after linearization, they precede Qual-As, as shown in the representation below:

(32)



The linearization procedure proposed by Kremers (2003) correctly predicts that the linear of adjectives in Romanian is the mirror of the English one (compare: *palat regal frumos* vs. *beautiful royal palace*).

As shown above, semantically, both Qual-As and Rel-As yield restrictive interpretations. Qual-As are intersective, while Rel-As are subsective. **An important generalization in Romanian is that all and only (directly) postnominal adjectives are restrictive**. Naturally, postnominal adjectives are not in the periphery of the DP.

3.2. Intensional adjectives

3.2.1. Similarities between Int-As and Rel-As

Relational adjectives have often been analyzed as (object-level) intensional adjectives (cf. Bolinger 1967; Siegel 1976), on a par with the restricted but well-known group *alleged, former, future, mere, utter,* etc. This analysis, first put forth in Bolinger (1967), was supported by many researchers, and is justified by the following similarities between the two classes.

(i) True intensional adjectives do not appear as predicates (33b). Relative adjectives may appear as predicates after the copula (33d), but this use is restricted (see 3.1.1. above):

(33) a. Ion este un **fost** primar.
John is a former mayor

b. *Primarul este **fost**.
mayor.the is former

c. Aceasta este politica **americană** în Irak.
this is policy.the American in Iraq

d. ??Politica în Irak este **americană**.
policy.the in Iraq is American

(ii) Neither Int-As (34) nor Rel-As (35) allow the inference from 'this is an AN' to 'this is an A'. In this, both classes contrast with (typical) Qual-As, which are intersective, allowing this inference (36):

(34) a. Acesta este un teritoriu **naţional**.
this is a territory national

b. *Acesta este **naţional**.
this is national

(35) a. Acesta este un **presupus** asasin.
this is an alleged murderer

b. *Acesta este **presupus**.
this is alleged

(36) a. Acesta este un munte **înalt**.
this is a mountain high

b. Acesta este **înalt**.
this is high

(iii) Both Int-As and Rel-As do not accept proper names as subjects, as shown in (37b) and (37d). In other words, they are **not object-level predicates** and do not directly determine a class of individual objects.

(37) a. Ion este **viitorul** preşedinte.
Ion is future.the president

b. *Ion este **viitor**.
Ion is future

c. Ardealul este un teritoriu **naţional**.
Ardealul is a territory national

d. *Ardealul este **naţional**.
Ardealul is national

A handy means of expressing the common properties of Rel-As and Int-As is to say that they are **kind-level adjectives**.[1]

3.2.2. Some important differences

There are also important semantic and syntactic properties which distinguish between Rel-As and Int-As (McNally & Boleda 2004), and which Rel-As share with Qual-As.

The predicative use

As shown, Rel-As may be predicative, even if their predicative use is constrained (see above 3.1.1.). In contrast, the ban on the predicative use of Int-As is exceptionless.

[1] They combine with kind-denoting NPs, of type $\langle k, t\rangle$, which are viewed as relations between individuals and kinds, and ascribe properties to individual objects indirectly, by virtue of the fact that individual objects realize kinds, $R(x_o, k)$. In this view, the denotation of a noun like Rom. *teritoriu* 'territory' is as follows: $\lambda k\ \lambda x[R(x, k) \wedge$ *teritoriu* $(k)]$.

Lack of scope

If two Rel-As modify the same noun, the set denoted by the phrase is the same, irrespective of their order (38) (even if this set is arrived at by different operations, as indicated by the bracketing, cf. Knittel to appear). In contrast, if at least one of the adjectives is intensional, **the adjectives stack**, and the order of the adjectives is all important in identifying the referent, as in (39). No stacking occurs for postnominal Qual-As either, as shown in (40).

(38) a. [[[literatură] romantică] engleză] = b. [[[literatură] engleză] romantică]
literature Romantic English literature English Romantic
'English Romantic literature' = 'Romantic English literature'

(39) a. tânăr fost ministru ≠ b. fost tânăr ministru
young former minister former young minister
'young former minister' ≠ 'former young minister'

(40) a. un bărbat înalt brun = b. un bărbat brun înalt
a fellow tall dark a fellow dark tall
'a tall dark fellow' = 'a dark tall fellow'

In conclusion, there are significant **semantic** reasons to differentiate between Rel-As and Int-As.

Distribution inside the DP

Finally, Romance languages offer an essential syntactic difference between Int-As and Rel-As. In Romance, including Romanian, Rel-As appear **only postnominally** (41), while Int-As appear **only prenominally** (43). The postnominal position in Romance is typical for restrictive modifiers. Qual-As appear on both sides of the head (42).

(41) a. comedie **muzicală** b. *__muzicală__ comedie
comedy musical musical comedy

(42) a. comedie **celebră** b. **celebră** comedie
comedy famous famous comedy

(43) a. *comedie pretinsă b. pretinsă comedie
comedy alleged alleged comedy

In conclusion, Int-As are kind-level constructions. Given their non-subsective interpretation, we propose to view them as basically denoting func-

tions from kinds to kinds ($\langle k, k\rangle$) or from kind-level predicates to kind-level predicates, with denotation of type $\langle\langle k, t\rangle,\langle k, t\rangle\rangle$. Int-As cannot be syntactic predicates (37b) since they do not map their argument onto a $\langle t\rangle$-denotation, and a clause is a constituent whose denotation is $\langle t\rangle$.

3.2.3. On the syntax of intensional adjectives

It has been shown that Int-As cannot be syntactic predicates, as an effect of their denotation. Furthermore, since neither NPs nor DPs have $\langle\langle k, t\rangle,\langle k, t\rangle\rangle$ denotations, Predicate Modification (θ-Identification), which requires constituents of **identical denotation type**, is not available as a mode of combination either. The remaining possibility is that Int-As should be NP-Adjectives which combine with the NP by Functional Application. Consequently, the NP with which the adjective combines must be a **selected argument of the adjective.** This is the essential difference between Int-As (which are second order functions) and restrictive adjectives, which are first-order functions. Thus, while restrictive adjectives s-select NPs, Int-As both **c-select and s-select them**.

C-selection cannot be represented by **syntactic adjunction**; the c-selection relation is naturally formalized as a head-complement relation. Indeed, Bernstein (1993) treats Int-As as heads which select NP complements, while other adjectives are analyzed as specifiers. Romanian does not support such a proposal, however, since there is abundant evidence that all adjectives are phrases (Grosu 1988; Coene 1999, among others) For example, adjectives are excluded from patterns described as involving head movement. A case in point is the movement of the definite noun-head N^0 past a demonstrative adjective, which may be noticed by comparing examples like (44a) and (44b); in contrast, a definite adjectival head A^0, even an intensional one, cannot appear in this structure, as testified by (45b):

(44) a. acest **preşedinte**
this president
'this president'

b. **preşedintele** acesta
president.the this
'this president'

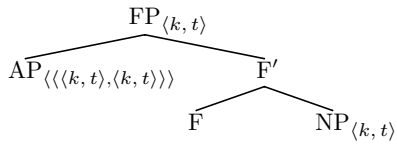
(45) a. acest **viitor** preşedinte
this future president
'this president'

b. ***viitorul** acesta preşedinte
future.the this president
'this future president'

The remaining possibility is to project Int-As as **specifiers** of a functional head whose role is to select the required NP argument. The fact that Int-As merge as specifiers in the configuration above guarantees that they co-

occur with the appropriate NP complement, satisfying their c-selectional requirement.

(46)



A desirable consequence of this syntactic analysis is that intensional As are subject to the linearization principle ruling over selected constituents. This is **Select First** (see 1.1. above), and it ensures that selected constituents, specifiers in the first place, **precede the head**. The emerging generalization is that adjectives which are non-restrictive merge as specifiers of designated functional projections and **remain prenominal**.

Thus the specific interpretations of adjectives prenominally and postnominally constitute an **interface problem**, being the effect of the different specification vs. adjunction syntactic configurations adjectives are associated with. Demonte (2008) also argues that the different positions represent different configurations, though her implementation is different from ours.

3.3. Conclusions so far

The configuration where the adjective merges determines its interpretation. The adjunction configuration leads to restrictive interpretations and postnominal position. The specification configuration correlates to non-restrictive readings and to prenominal position.

In the next part of the paper, we discuss **prenominal adjective**, arguing that:

(i) the interpretation of prenominal adjectives systematically differs from the interpretation of postnominal adjectives (Demonte 1997; 2008; Ticio 2010; Laenzlinger 2005a, among others). Laenzlinger (2005b; 2010) adopts a Split-D hypothesis and associates prenominal adjectives with checking information structure features (= P-features),[2] such as quantificational features (QuantPs), features of subjective evaluation (SubjP).

[2] "As is well-known, attributive adjectives can be prenominal in Romance, particularly in French. However, adjectival prenominal placement in French is restricted to some adjectives, with a specific interpretation and/or specific effects. Prenominal adjectives must be quantificational, subjective/evaluative or light/weak/short." (Laenzlinger (2005b, 232))

(ii) their different properties provide evidence for the existence of two nominal domains: the n*-phase and the d*-phase.

4. NP-adjectives. The *n**-periphery

As known, the lexical n*-phase domain includes not only the head noun and its arguments, but also the nominal modifiers, most of which are postnominal. Thus, the expected position of Romanian adjectives is postnominal. A part of adjectives which appear prenominally occupy the n*-periphery. We define the n*-periphery as the space between the NumP/QP and the lexical NP. Projections in the n*-periphery host P-features. Empirically, the left boundary of the n*-phase is represented by cardinals.

Unlike postnominal NP-adjectives, NP-adjectives in the n*-periphery merge as **specifiers** of periphery functional heads, and remain **prenominal**. 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]. Some adjectives, namely the always intensional ones (47a,b), are inherently modal and/or quantificational (Bouchard 1998; Demonte 2008, among others) and always merge at the n*-periphery. Qual-As contextually incorporate P-features, turning into, and behaving like, inherently Int-As, as in (47c). Thus, Int-As in all languages and, in the case of Romance, all adjectives which appear (only) prenominally do so precisely because they are modal or quantificational operators (see also Laenzlinger 2005b). Here are a few examples:

(47) a. **fost** preşedinte
former president

b. **simplu** muritor
mere mortal

c. BUNĂ treabă
good job

In addition to their prenominal position, n*-periphery adjectives also have **characteristic interface properties**.

First, regarding their denotation, n*-periphery adjectives (i.e., prenominal 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 interface properties.

For instance, while in postnominal position (48c), *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 (48b) only the kind-level reading survives.

(48) a. un foarte popular$_o$ [fost$_k$ ministru]
a very popular former minister
'a very popular former minister'

b. un fost$_k$ foarte popular$_k$ ministru
a former very popular minister
'a former very popular minister'

c. un fost$_k$ ministru foarte popular$_{o/k}$
a former minister very popular
'a former 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 (48) once more. Example (48a) 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 (48b) and (48c), which illustrate an *n**-periphery non-intersective modifier in contrast with a (postnominal) intersective one. In (48b), the two prenominal adjectives stack, and as a result, *fost* 'former' scopes over *popular* 'popular', so the phrase unambiguously designates 'a minister who used to be popular'. By contrast, (48c) 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 ((49a) vs. (49b)). The prenominal position (49a) only retains the **kind-level reading**. Thus, when it is prenominal and follows an intensional modifier like *fost* 'former', the adjective *înalt* 'tall, high' only retains the meaning 'high' (the kind-level reading):

(49) a. un fost **înalt** demnitar
a former high official

b. un fost demnitar **înalt**
a former official high/tall

The same semantic contrast obtains in (50)–(51): used prenominally ((50a) and (51a)), the adjectives *simplu* 'mere' and *adevărat* 'real' are category hedges, focusing on particular defining attributes of the kind denoted by the NP. They are thus clearly intensional. In postnominal position, it is their descriptive readings which are chosen (*simplu* 'simple', *adevărat* 'true'), as shown in (50b) and (51b).

(50) a. Acesta este un **simplu** exerciţiu.
this is a mere exercise
'This is a mere exercise.'

b. Acesta este un exerciţiu **simplu**.
this is a exercise simple
'This is a simple exercise.'

(51) a. Aceasta este o **adevărată** poveste.
this is a real story
'This is a real story.'

b. Aceasta este o poveste **adevărată**.
this is a story true
'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 prenominally. In particular, Rel-As do not, even if they are kind-level modifiers (52a). 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, Rel-As which develop gradable (quantificational) readings do appear at the *n**-periphery (52b), being coerced into a qualifying use.

(52) a. un **elitist** preşedinte
an elitist president

b. un fost foarte **elitist** preşedinte
a former very elitist president

We next turn to the investigation of the adjectives which appear in the second phasal domain, the *d**-periphery.

5. DP-adjectives. The *d**-periphery

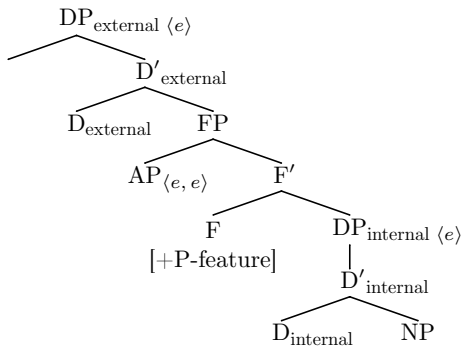
The *d**-periphery is the syntactic space between the outer $D_{external}$ and the inner $D_{internal}$, containing FPs that check P-features. Adjectives merge at the D-periphery when they incorporate relevant P-features. Unlike *n**-phase adjectives, which are concerned with classification and kind, *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 (see also Bouchard 1998). Examples are the underlined adjectives in (53a) and (53b), which occur to the left of intensional adjectives and cardinals at the boundary of the *n**-phase.

(53) a. un simpatic $[_{n*}$ fost prim-ministru]
a nice former prime minister

b. aceste fenomenale $[_{n*}$ şapte legi]
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 shown in (54):

(54)



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 (see 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 (54) comes from different sources. Kim (1997) shows that in head-final languages, like Korean and Japanese, there are two positions for adjectives: a prenominal (post-determiner) position (55a) and a pre-determiner position (55b) (examples from Kim 1997). These two positions correspond to the restrictive and non-restrictive readings of the adjective. 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 (54). The proposal here relies on the same intuition

that non-restrictive modifiers are sisters to DPs. Kim's analysis is also adopted in Ticio's (2010) analysis of Spanish.

(55) a. ku [keteran [$_{NP}$ namwu] (restrictive, sister to NP; Korean)
the big tree

b. keteran [$_{DP}$ ku namwu] (non-restrictive, sister to DP; Korean)
big the tree

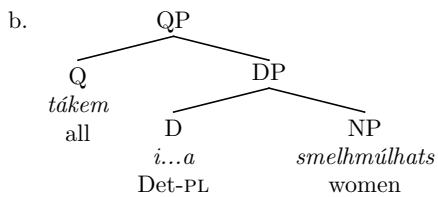
An important aspect of configuration (54) is the Split-D hypothesis itself. This raises the problem of the existence and role of the internal, often silent, D. One may claim that the lower D is simply required for φ feature agreement between the determiner and the noun in a sufficiently local configuration, as proposed by Laenzlinger (2005b).[3] 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 (Ihsane & Puskás 2001) that the [+definite] feature is valued in the internal D (DefP in their terminology), while discourse-bound features like [+specificity], [+deixis] are valued in the higher part of the functional domain (in the external D, in our terminology).

In the theory of-periphery adjectives that we have sketched, the internal 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 Matthewson (2001), who notices that in languages like St'át'imcets the structure of a generalized quantifier is always as illustrated in (56a): a quantificational element appears as sister to a full DP, containing an overt plural determiner. The configuration in (56b) is essentially similar to (54). In St'át'imcets, a generalized quantifier is always formed in two steps. The first is the cre-

[3] As pointed out by one of the reviewers, in Laenzlinger (2005a;b) (some) determiners merge in the internal D position to agree with the noun, and then (head-)move to the higher position. We have not completely followed Laenzlinger for the following reasons: (i) there is no need that the noun should be right below the determiner for agreement since an intervening adjective, which has agreed with the noun, can equally well value the φ-features in D; (ii) Romanian is a language where the two D positions can be overtly filled by distinct definite determiners (double definite structures), associated with the two D positions (*muncitor**ul acela/cel** vrednic* 'worker.the that/the hardworking'). The lower D position may play an independent semantic role, as shown by Matthewson (2001) or by Ihsane & Puskás (2001).

ation of a DP of type $\langle e \rangle$, and the second involves quantification over the plural individual denoted by the DP (*ibid.*, 147).

(56) a. tákem [i smelhmúlhats-a] (St'át'imcets)
all Det-PL woman(PL)-Det
'all the women'

b. 

Matthewson (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, Matthewson (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.

6. The *d**-periphery versus the *n**-periphery

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

6.1. Denotation types

N*-periphery adjectives are kind-level modifiers, while d*-periphery adjectives are object-level modifiers. N*-periphery adjectives have $\langle\langle k, t\rangle, \langle k, t\rangle\rangle$ denotations, peripheral d*-modifiers have $\langle e, e \rangle$ denotations.

Given the assumed architecture of the DP, a prediction can be made regarding the relative order of the two modifiers: object-level modifiers precede kind-level ones. This confirms an often noticed ordering principle

(cf. Stavrou 2001; Scott 2002), namely, that modifiers that **classify** the referent (i.e., kind modifiers) are closer to the head than modifiers that **describe the object in context**. As an example, consider *înalt*, meaning 'tall' or 'high', an adjective which may realize both meanings in prenominal position. When the two readings occur together, the object-level reading, 'tall', precedes the kind-level reading 'high', as expected. Other adjectives (see (57b) and (57c)) display a similar behaviour: the one closer to the head classifies it, while the other describes it in context.

(57) a. Un foarte **înalt** [**înalt** demnitar] face impresie.
a very tall high official makes impression
'A very tall high official is impressive.'

b. un **mic** [**mare** [fiasco]]
a small big failure
'a small huge failure'

c. cel mai **mic** **mare** dansator de break dance (http://www.youtube.com)
the more small big dancer of break dance
'the smallest great breakdancer'

The leftmost adjective has the object-level reading, and can be interpreted as a description of the speaker's, true in the given context.

6.2. Genericity in the *n**-periphery

The lack of uniformity of the prenominal domain is clearly shown by generic sentences. As known, generic sentences are **kind-level constructions**, which should exclude context-bound properties (conveyed by *d**-periphery adjectives), as well as subjective overtones in the description of kinds (conveyed by prenominal *n**-periphery adjectives). The expectation, fully borne out by the data, is that, in generic sentences, adjectives should be **postnominal**, having descriptive restrictive interpretations (58). Adjectives which merge at the n*/*d**-periphery and remain prenominal only because they incorporate P-features are duly excluded in generic sentences (58a).

(58) a. ?/* **Fidelul** discipol ascultă de maestru.
faithful.the disciple listens to master

b. Discipolul **fidel** ascultă de maestru.
disciple.the faithful listens to master
'The faithful disciple obeys his master.'

The only exception is that of Int-As, which are always prenominal. Thus, inherently Int-As (59a), as well adjectives whose prenominal interpretation is always intensional (59b) may appear in generic sentences. At the same time, as also noticed by Knittel (to appear), certain categories of Qual-As, in particular, evaluative adjectives (*bun* 'good', *mare* 'big'), can also be coerced into a sub-kind intensional interpretation, appearing in generic sentences (59c).

(59) a. **Foştii** miniştri sunt bogaţi.
'Former ministers are rich.'
b. **Adevăraţii** profesori sunt rari.
'True teachers are rare.'
c. **Bunii** bucătari sunt rari.
'Good cooks are rare.'

Int-As are accepted in generic sentences since they map kinds onto kinds. As shown in section 4 above, all Int-As belong to the n*-periphery.

In sum, generic sentences prefer the postnominal position of adjectives and completely exclude d*-periphery adjectives, which render context-bound properties. Only some of the n*-periphery adjectives are ruled in.

6.3. Specific indefinites at the *d**-periphery

With indefinite DPs, the presence of Qual-As in prenominal position may force the choice of the specific reading of the DP. In contrast, the post-nominal position is ambiguous as to specificity.

(60) a. Cele cinci fete au făcut cunoştintă cu un actor **celebru** [±specific]
the five girls have made acquaintance with an actor famous
b. Cele cinci fete au făcut cunoştintă cu un **celebru** actor. [+specific]
the five girls have made acquaintance with a famous actor
'The five girls were introduced to a famous actor.'

The specific interpretation of d*-periphery indefinite DPs induced by prenominal 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 (60a) any famous actor would make the sentence true, (60b) 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 (60b) is thus specific.

As correctly pointed out by one of the reviewers, not all property-denoting adjectives may confer specificity to a DP, even if they are prenominal. For instance, adjectives which express prototypical properties may be prenominal, with a non-restrictive interpretation, conveying a subjective comment of the speaker's, as in (61a). Since prototypical properties are not context-dependent, they are not related to the speaker's epistemic status, and do not produce specific readings. They will be viewed as kind-level adjectives, and as such they may be part of the *n**-periphery. The same adjectives may produce specific interpretations when they are not prototypical, but express object-level context bound properties, as in (61b).

(61) a. Caut un **tânăr** student care să locuiască la mansardă. [−specific]
(I)look.for a young student who live.SUBJ at attic
'I'm looking for a young student who would live in the attic.'

b. Așteptăm un **tânăr** bunic, care își plimbă nepotul. [+specific]
(we)wait for a young grandfather who strolls grandson.the
'We are waiting for a young grandfather who is strolling with his grandson.'

Thus, the DP-periphery typically includes properties which characterize the speaker's knowledge of the referent. Evaluative adjectives like *celebru* 'famous', *important* 'important', *cunoscut* 'well-known' are clearly related to the epistemic status of the speaker.

In Romanian, there are several syntactic properties that correlate with DP specificity. Importantly, prenominal adjectives are felicitous with all of them, and incompatible with the corresponding non-specific environment.

One construction inducing specificity with indefinite DPs is Differential 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; Mardale 2009; von Heusinger & Onea Gáspár 2008). Expectedly, prenominal qualifying adjectives are also possible in DOM-ed indefinite DPs (62b). The prenominal adjective strengthens their specific, object-level reading. In contrast, after an intensional verb like *cere* 'require, need', which takes a non-specific object, DOM (63b) and prenominal adjectives (63c) are both out.

(62) a. Căutam un actor **celebru**. [±specific]
I was looking for an actor famous

b. (Îl) caut PE un **celebru** actor al teatrului dumneavoastră [+spec.]
him-(I)look for PE a famous actor of theatre.the.GEN your

(63) a. Rolul cere un actor **celebru**. [−specific]
part.the needs an actor famous

b. *Rolul îl cere PE un actor **celebru**. intended: [+specific]
part.the him needs PE an actor famous

c. ?Rolul cere un **celebru** actor. intended: [+specific]
part.the needs a famous actor
'The part needs/requires a famous actor.'

A second example is offered by rhetorical questions. According to Bosque (2001), rhetorical questions license the non-specific reading of indefinites (64a,c). In these contexts the presence of a prenominal Qual-A in the indefinite DP makes the rhetorical reading impossible, and in fact, the question infelicitous (64b,d):

(64) a. Când (naiba) mi-ai recomandat tu un roman **interesant**?
when the hell to me-(you)have recommended you a novel interesting
'When did you recommend me an interesting novel?' [−specific]

b. *Când (naiba) mi-ai recomandat tu un **interesant** roman?
when the hell to me-(you)have recommended you a interesting novel

c. 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]

d. *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 (65a). Prenominal adjectives are not welcome in these contexts as well (65b):

(65) 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 interesting novel
'You should write an interesting novel.'

Finally, indefinite quantifiers, such as *niciun/nicio* 'no', *vreun, orice* 'any', which do not allow a specific reading due to their lexical meaning (66a,c), are not compatible with prenominal adjectives either (66b,d) (see Bosque 2001 for similar Spanish data):

(66) a. Cumperi orice roman **celebru**.
(you) buy any novel famous
'You buy any famous novel.'

b. ??Cumperi orice **celebru** roman.
(you) buy any famous novel

c. N-am văzut niciun articol **interesant**.
(I) haven't seen no article interesting
'I haven't seen any interesting article.'

d. *N-am văzut niciun **interesant** articol.
(I) haven't seen no interesting article

Prenominal adjectives in specific indefinite DPs are clearly non-restrictive. Since specific DPs pick up (contextually) unique individuals, the proposal we have made, that prenominal d*-periphery adjectives are $\langle e, e\rangle$ functions, is appropriate for indefinite phrases as well.

We may conclude that prenominal 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. This follows from the fact that **genericity is a kind-level property, while specificity is an object-level one**.

6.3.1. 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.

Cardinal numerals and some lexical quantifiers[4] cannot be preceded by n*-periphery adjectives:

(67) a. aceşti importanţi [$_{n*}$ **şapte** oficiali]
these important seven officials

[4] Reviewer 2 wonders why other quantifiers such as the degree quantifiers *mulţi* 'many', *puţini* 'few' and the definite predeterminers *toţi* 'all', *amândoi* 'both' cannot be used to delimit the n*-phase. As to *toţi* and *amândoi*, they are always followed by definite constituents, unlike English (Engl. *all* ***the*** *girls*/*all girls*, Rom. *toate fete****le*** 'all girls.the'/**toate fete* 'all girls'), and cannot be expected to delimit a domain below D. *Mulţi* and *puţini* have dual morphology: they may be inflected like adjectives, being able to be suffixed by the definite article and to have degrees of comparison (*foarte mulţi* 'very many, a lot'); but they also behave like cardinals in that they may fail to be case inflected. The different distribution of *mulţi*, *puţini* (including the postnominal position) may be related to the adjectival use (see Cornilescu 2009). *Câţiva* 'a few', however, even if it has dual morphology, being either case inflected or not, fails to be suffixed by the definite article and also to appear postnominally.

b. *aceşti foşti [$_{n*}$ **şapte** oficiali]
these former seven officials

c. aceşti importanţi [$_{n*}$ **şapte** foşti oficiali]
these important seven former officials

d. aceşti importanţi [$_{n*}$ **câţiva** oficiali]
these important (a) few officials

e. *aceşti foşti [$_{n*}$ **câţiva** demnitari]
these former (a) few officials

f. aceşti importanţi [$_{n*}$ **câţiva** foşti oficiali]
these important (a) few former officials

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):

(68) a. doi **alţi** pretinşi specialişti[5]
two other alleged specialists

b. **alţi** doi pretinşi specialişti
other two alleged specialists

c. *doi pretinşi **alţi** specialişti au fost concediaţi
two alleged other specialists have been fired

By examining prenominal participles, in the next section we bring evidence for the isomorphic nature of the two nominal peripheries.

7. The isomorphic structure of the two peripheries

Using the distributional and interpretative facts quoted so far, we hope to have established that there are two distinct prenominal classes of adjectives, whose properties can be understood in terms of the distinction

[5] One of the reviewers comments that there is a difference of acceptability between (68a), described as marginal, and (68b), which is fully acceptable. We have checked the data in (68) with native speakers and the internet, and have found the following results: the order in (68b) [*alt* + cardinal numeral + intensional adjective (*pretins, fost, presupus*)] is indeed the most frequent, an unsurprising fact given that *alt* is an adjective (even if functional), while the cardinal is a quantifier; however, the order in (68b) [*alt* + cardinal + intensional adjective] is hard to describe as marginal, if compared to the order in (68c) [cardinal numeral + intensional adjective + *alt*], which is totally unattested.

between NP-adjectives, part of the lexical *n**-phase, and DP-adjectives, part of *d**-phase.

In this section we argue that, if a sufficiently abstract conception of P-features is adopted, then it may be shown that the same kind of features are checked at both nominal peripheries, and in that sense the two peripheries are isomorphic.

The analysis explores the view that a (if not **the**) defining property of phases is that they are **quantificational domains** (Butler 2004). According to Butler (*op.cit.*, 175), "phases should be defined in terms of quantification, not propositionality". **Phases should be quantificational domains since phases are sent to the interfaces** (interpretative components) and all free variables inside them should quantified (i.e., bound) before they are sent to the interface. This amounts to claiming that phase edges (peripheries) should be quantificational domains. Given Rizzi's (1997) proposals for the structure of the left-periphery, this statement may be taken to be oversimplifying or descriptively inadequate. It is neither, if one remembers the connection between periphery and quantificational features. We have mentioned (section 1.2.) that features like [(contrastive) topic], [(contrastive) focus], [emphasis], [subjective] need not be taken as primitives, but can be further decomposed into simpler feature: [quant] is one of them; [modal(ity)] is another. The features [quant] and [modal] are thus entailed by the more complex [(contrastive) topic], [(contrastive) focus], [emphasis], which are generally acknowledged to be checked at peripheries. It was seen above that some items incorporate P-features when they enter the numeration, while others are inherently quantificational or modal. The latter are natural candidates for merge at the periphery. Compare once more the adjectives *inteligent* 'intelligent' and *fost* 'former': *fost* is lexically quantificational since intensional adjectives are functions on possible worlds, and thus always merges in the *n**-periphery (69a); when *inteligent* is [emphatic], therefore selected out of a range of alternatives, it becomes quantificational and thus a candidate for merge or re-merge at the left-periphery. It is because it has become [emphatic] (thus [quant]) that it is not allowed in generic sentences, as shown in (69b):

(69) a. **Foştii** miniştri sunt bogaţi.
former.the ministers are rich
'Former ministers are rich.'

b$_1$.***Inteligentul** student întotdeauna învață.
intelligent.the student always studies

b$_2$. Studentul **inteligent** întotdeauna învață.
student.the intelligent always studies
'The intelligent student always studies.'

The fact that the same (kind of) features are checked at all peripheries, in particular, at both nominal peripheries should not obscure the interpretative differences between the nominal peripheries, which spring from the difference between the DP vs. NP syntax and interpretation. NP-adjectives are functions from NPs onto NPs, while DP-adjectives map DPs onto DPs.

To show that [quant] is a/the relevant feature for occurrence at the periphery, we examine the behaviour of past participles, which will not only provide an argument for the existence of the *n**/*d** peripheries, but will 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 prenominal position. Felicitous prenominal participles give a clue to the structure of the nominal peripheries, if one assumes that a participial construction can be prenominal (i.e., can merge or move to the-periphery) only if it incorporates and then checks/values a suitable P-feature. Furthermore, the relative position of the prenominal participles with respect to other modifiers indicates that they are either *n**- or *d**-periphery constituents.

As to which participles occur prenominally, a relevant parameter appeared to be Aspect. Thus, Embick (2004) argues that prenominal participles should be stative or resultative, but not eventive. More precisely he claims that participles with **episodic** readings cannot be prenominal. However, Sleeman (2007) discovers that at least eventive participles modified by *recently* may be prenominal, 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 prenominal occurrence of the participle (cf. Cornilescu 2005).

(70) a. un recent **schiţat** proiect / *un **schiţat** 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 prenominal 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 (70) 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 adverbial modifier of the participle 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). Negative prefixes ((71a) vs. (71b)) or quantificational adverbs ((72a) vs. (72b)) which stativize the participle also allow it to appear prenominally. In all these instances, the participle will merge at the periphery by virtue of being quantificational, even if other features are also relevant. The postnominal position is always available ((71c) and (72c)).

(71) a. un **neobservat** efect
an unnoticed effect

b. *un **observat** effect
a noticed effect

c. un efect (**ne**)**observat**
an effect (un)noticed

(72) a. un veşnic **grăbit** profesor
an always in-a-hurry professor

b. *un **grăbit** profesor
an in-a-hurry professor

c. un profesor (veşnic) **grăbit**
an professor always in-a-hurry

What counts is that adverbs which stress episodic interpretations are out:

(73) a. o scrisoare **sosită** ieri
a letter received yesterday

b. *o ieri **sosită** scrisoare
a yesterday received letter

c. un om **plecat** atunci / atunci **plecat**
a man left then then left

d. *un atunci **plecat** om
a then left man

Other means of suggesting the causing event which initiates the target state are manner adverbs, because of their agentive component. The agentive component evokes the triggering event, so that there is again a target state resulting from the initiating event:

(74) o fastuos **decorată** cameră / *o **decorată** cameră
a richly decorated room a decorated room

A stative reading is thus contextually constructed. In the sense of modal logic, target state properties could be constructed as modal, implying **quantification** over times/events/situations. Having shown these, we may conclude the following about prenominal participles:

(i) Participles occur prenominally only if they value a **quantificational** or **modal feature**. This means that these participles merge or re-merge in the specifier of a-periphery projection headed by X^0[...[+quant] ...].

(ii) Peripheries contain functional projection that check [quant] and [modal] features. As shown in the first part of the paper, the features [quant] and [modal] are subcomponents of more complex P-features like Topic, Focus, etc.

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:

(75) a. un fost cândva bogat **decorat** palat
a former once richly decorated palace

b. aceşti doi veşnic **grăbiţi** profesori
these two always in-a-hurry professors

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

(76) a. acest recent **redecorat** fost palat prezidenţial
this recently redecorated former palace presidential

b. aceste recent **redecorate** două palate rezidenţiale
these recently redecorated two palaces residential

This distribution ((75) vs. (76)) indicates that participles are *d**- or *n**-periphery constituents, checking the same [quant] feature in both phasal domains.

The occurrence of prenominal participles below other adjectives (n*-periphery adjectives in our analysis) provides direct evidence against the typological generalization advanced in Cinque (2005), which claims that relative clauses (RCs) as well reduced relative clauses are edge modifiers, so that the admissible UG orders are as shown below (*op.cit.*, 7):

(77) a. RC Adj N c. *Adj RC N (also e. Adj N RC)
b. N Adj RC d. *N RC Adj (also f. RC N Adj)

The data we have examined have shown that, contrary to the belief that the only acceptable order is **RC + A + N**, it is also possible to have the order **A + RC + N**, where the A is an intensional kind modifier, a constituent which must be in the n*-domain. In other words, it is not always the case that the prenominal participle is an indirect modifier. We thus have either the order RC + A_{kind} + N (78) or the order A_{kind} + RC + N (79) (see also Sleeman 2007, who also discussed these orders).

(78) a. Un **pretins**$_A$ **foarte bine cotat**$_{RC}$ **specialist**$_N$
an alleged very well appreciated specialist
(trebuie să fi publicat și în străinătate)
should SUBJ have published also abroad

b. (În fond, nu era decât) un **simplu**$_A$ **proaspăt angajat**$_{RC}$ **muncitor**.
in fact, he was but a mere recently hired worker

(79) a. un (**cândva**) bine cunoscut$_{RC}$ **fost**$_A$ **personaj public**$_N$
a once well known former character public
acum aproape uitat
now almost forgotten

b. un **deja observat**$_{RC}$ **presupus**$_{RC}$ **efect**$_N$
an already observed alleged effect

To sum up, prenominal participles provide solid evidence for the hypothesis that the same kind (i.e., quantificational) of features are checked/valued at both nominal peripheries.

8. The relative order of Romanian adjectives

The following relative ordering of adjectives has emerged:

(80)		*d**-periphery		*n**-periphery	NP phase	taxonomic A	qualifying A
	DP	AP	DP	AP	NP	AP_1	AP_2
		$\langle e, e\rangle$		$\langle\langle k, t\rangle,\langle k, t\rangle\rangle$	$\langle k, t\rangle$	$\langle k, t\rangle$	$\langle e, t\rangle$
	un	simpatic		înalt	demnitar	român	foarte bogat
	a	nice		high	official	Romanian	very rich
		non-restrictive modification				*restrictive modification*	

As known, at least two approaches to adjective ordering restrictions are current. One is the cartographic approach (initiated by Sproat & Shih 1988) and continued by the very influential work of Cinque (2003; 2005; 2010), closely followed by Scott (2002) and Laenzlinger (2005a;b). This is an attempt to break down adjectives into a large number of descriptive semantic classes, establishing a universal cognitive hierarchy: "I will be examining the notion of 'fixed order' and proposing that it be considered part of Universal Grammar (UG). [...] I will argue for a framework that treats adjectives not as adjuncts, but as specifiers of distinct functional projections that are intrinsically related to aspects of their semantic interpretation" (Scott 2002, 91). Romanian does not seem to fully support the proposed universal hierarchy, and, unlike (for instance) English, has been described as a language where adjectives are freely ordered (see, for a more recent opinion, Brăescu 2012). However, the above examination of the data led to the conclusion that adjectives are not completely freely ordered in Romanian.

There are two factors that influence the order and interpretation of adjectives: the first is the relative position with respect to the head. Since Romanian is a head initial language, adjectives normally follow the head, and in this position they are restrictive. Prenominal adjectives are peripheral, yielding special interpretations. The second factor is the semantic class of the adjective, as described above. Thus, in postnominal position taxonomic adjectives precede qualifying ones. At the same time, object-level adjectives (DP-adjectives) precede prenominal and postnominal NP-adjectives.

Our results are in line with the second approach to linearization, illustrated by researchers like Kamp (1975), Stavrou (2001), whose goal is to find more abstract principles that determine adjective ordering. We are in agreement with the intuitions of the many researchers that have focused on the distinction between object-level properties and kind-level properties, stressing that kind-level adjectives stay closer to head. Thus, Stavrou

(2001) argues that "the more absolute the meaning of an adjective is found to be, the closer it is expected to be found to the head which it modifies", and Kamp (*op.cit.*, 153) identifies the same two basic functions of attributive adjectives, namely attributive adjective "**contribute to the delineation of the class of objects** that the complex noun-phrase of which it is part is designed to pick out – or, alternatively, they **help determine the particular individual** which is the intended referent of the description in which the adjective occurs".

It is worth mentioning that, for DP-internal adjectives, the distinction between object-level and kind-level adjectives is the same as Larson and Marušič's (2004) syntactic distinction between the DP- and NP-adjectives, semantic interpretation expectedly following from syntax.

9. Conclusions

(i) In our analysis, the difference between the same adjective used prenominally and postnominally lies in the fact that in the prenominal use the adjective incorporates a pragmatic quantificational feature, with the consequence that it merges as the specifier of a periphery projection combining with its sister by Functional Application, not by Predicate Modification. This is true of both NP- and DP-adjectives. DP-internal adjectives interpreted by Functional Application are not restrictive. The adjunction configuration corresponds to direct modification and to an operation of Predicate Modification, whose output is a restrictive (intersective or subsective) interpretation. The difference between prenominal and postnominal adjectives has thus been accounted for.

(ii) The main criterion of classification for adjectives appears to be the syntactic one, distinguishing between NP-adjectives and DP-adjectives. Within nominal phrases, this contrast correlates with the semantic difference between kind-level modifiers (NP-adjectives) and object-level modifiers (DP-adjectives). Kind-level modifiers differ as to "how objective" the classification they propose is. Postnominal NP-adjectives are descriptive, stylistically neutral, while prenominal NP-adjectives add a pragamatic stance (i.e., pragmaticize) on the classification.

(iii) On the theoretical side, there is evidence for a class of DP-adjectives inside the nominal phrase, described as object-level modifiers which combine with the sister DP by Functional Application. They are predicates on the DP, exhibiting the same semantic behaviour as small clause predicates.

(iv) Against the more traditional view, our results on the relative order of adjectives in Romanian coincide with those of other researchers (Molea 2004), who have shown that adjectival relative order depends on the semantic type of the adjective: in postnominal position, relational adjectives precede qualifying adjectives, and, prenominally, object-level modifiers precede kind-level ones.

(v) The evidence reviewed fully supports the claim that there are two distinct syntactic spaces between the external 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.

The fact that the interpretation of an adjective is derived from the range of its denotations and especially from the syntactic configuration where it occurs (which determines the choice among these denotations) is clearly a syntax–semantics interface issue.

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