

Degree adverbs as displaced predicates

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This paper deals with the internal syntax of adjective phrases containing degree adverbs. Taking the idea of cross-categorical symmetry as a guiding principle, I argue that placement of degree adverbs within the adjective phrase involves the phenomenon of predicate movement, a phenomenon which has been identified for the nominal and clausal domain in recent years. As in full clauses and noun phrases, leftward movement of the (degree) predicate can be of two types: the A-movement type and the \bar{A} -movement type.

1. Introduction

Studies on adverbial modification mostly take the clausal domain (i.e. the extended verbal projection) as their empirical domain of research. As a matter of fact, this bias towards the clausal/verbal domain is already clear from traditional terminology: the term 'ad-verb' already suggests that these modifying elements are typically analyzed as modifiers of the verb. Of course, it is well-known nowadays that adverbs modify not only verbs, but also predicates belonging to other syntactic categories, for example adjectives. Thus, besides modifying a verb (e.g. *John rather heavily depends on his parents*), an element like *heavily* can also modify an adjective, as in *John is rather heavily dependent on his parents*.

In this article, I will investigate certain properties of adverbial modification within the adjectival system. More specifically, I will examine the syntactic behavior of degree adverbials, i.e. such items as *extremely* and *incredibly* in (1):

- (1) a. extremely tall
b. incredibly stupid

Traditionally, these modifying elements are analyzed as being base-generated in some left-branch specifier or adjunct position within the (extended) adjectival projection (cf. Bresnan 1973, Bowers 1975, Corver 1997a,b). In this article, I will argue that the pre-adjectival position is in fact a derived position and that the

degree modifier undergoes a process of leftward predicate movement. The phenomenon of predicate movement has been identified within the clausal (see especially Moro 1991, 1997) and the nominal domain (see e.g. Kayne 1994). Predicate movement within the clausal domain is exemplified in (2), where (2a) represents the straight (i.e. non-inverted) order and (2b) the inverted order. The examples in (3) illustrate the application of predicate movement within the nominal domain.

- (2) a. I consider [_{SU} Peter] to be [_{Pred} the best candidate]
 b. I consider [_{Pred} the best candidate] to be [_{SU} Peter]

- (3) a. that [_{Pred} idiot] of a [_{SU} doctor]
 b. cet [_{Pred} idiot] de [_{SU} Jean] (French)

Although the application of predicate displacement within the adjectival system is not so transparent in a language like English, it is quite so in a language like Rumanian. Therefore, in this article, I will focus initially on such Rumanian adjectival constructions as (4a) and claim that it features displacement of a degree element. More specifically, I will propose that the modifying phrase *extrem* starts out as a predicate taking the adjective *înalt*, the modifiee, as its subject. Taking the theoretical position that the predication relationship is structurally represented in terms of a Small Clause (SC), one is led to an analysis in which there is a SC (i.e. XP) projected internal to the adjective phrase. This means that underlyingly we have a structure like (4b). The surface string is then derived by leftward movement of the predicate to a position to the left of the (adjectival) subject of the SC.

- (4) a. extrem de înalt
 extreme of tall
 'extremely tall'
 b. [_{XP} înalt [_Y extrem]] (*de* omitted)

After having examined predicate displacement of degree adverbs in the Rumanian adjectival system, I will discuss the existence of such a displacement operation within the Italian adjective phrase. In the next section, I will first, however, present some of the major characteristics of predicate displacement, as found in the clausal and nominal system.

2. Predicate displacement within clausal and nominal constructions

Within the clausal domain, predicate displacement can be of two types (cf. among others Bennis, Corver & Den Dikken 1998).

(5) types of predicate displacement

- Predicate Inversion (PM-A, i.e. predicate movement to an A-position)
 - a. *copular inversion* The best candidate is John
 - b. *locative inversion* Down the hill rolled the baby carriage
- Predicate Fronting (PM- \bar{A} , i.e. predicate movement to an \bar{A} -position)
 - c. *wh-movement* How good a candidate is John?
 - d. *topicalization* Down the hill, the baby carriage rolled

The \bar{A} -type of predicate fronting in (5c,d) is quite straightforward: the predicate is moved to a left peripheral \bar{A} -position, say [Spec,CP], and ends up in a position to the left of the subject (*John*, *the baby carriage*). Following especially Moro (1988, 1997), and also Hoekstra and Mulder (1990), I assume that the inverted predicate in (5a,b) targets the same position as the raised subject in (6), the straight order counterpart of (5a): viz. [Spec,IP].

- (6) John is the best candidate

Thus, starting from an underlying structure like (7a), the straight order pattern in (6) is derived by movement of the XP-internal subject to [Spec,IP] (cf. (7b)), whereas the inverted pattern involves movement of the predicate to [Spec,IP] (cf. (7c)).

- (7) a. [_{IP} ... be [_{XP} John X [_{Pred} the best candidate]]]
 b. [_{IP} John_i ... be [_{XP} t_i X [_{Pred} the best candidate]]]
 c. [_{IP} the best candidate_j ... be [_{XP} John X [_{Pred} t_j]]]

A consequence of the A-movement analysis of Predicate Inversion is that potential problems of locality are expected to arise in the derivation of Predicate Inversion-constructions, given that the displaced predicate skips an intervening A-position, viz. the SC-subject position. This crossing would incur a violation of Relativized Minimality (Rizzi 1990) unless the position that is skipped by the A-moving predicate and the (first) landing position of the predicate can

be rendered 'equidistant' from the extraction site, in the sense of Chomsky (1993). Two positions are equidistant if they are members of the same minimal domain. In the minimalist locality theory, this situation is obtained by having the SC-head undergo domain-extending head movement to a higher head, i.e. a head in whose specifier position the displaced predicate lands (or makes an intermediate stop). I will identify this head as 'F' in the structure in (8) (cf. Den Dikken 1995 for further discussion). What is important is that F (and its projections) is present in the tree for purely structural reasons, having to do with the minimalist theory of locality.

(8) $[_{FP} LP_j [_F F+X_i [_{XP} Spec [_X t_j t_j]]]]$

Movement of X to F creates the requisite minimal domain that contains both [Spec,XP] and the first available landing site for the raised predicate LP: [Spec,FP].

As first observed in Moro (1991), there are syntactic contexts in which the application of Predicate Inversion leads to the presence of a copular element at the surface. Compare, for example, (9a) with (9b).

- (9) a. I consider John (*to be*) the best candidate
 b. I consider the best candidate **(to be)* John

In the former, straight order pattern the infinitival copula *be* is only optionally present; in the inverted pattern, however, *to be* is obligatorily present. In Den Dikken (1995), the presence of the verbal copula is taken to be a surface reflex of the presence of F in the structure in (8). That is, *to be* is the overt realization of F.

From the perspective of cross-categorical symmetry,¹ one should raise the question whether the phenomenon of predicate displacement is also attested in other, i.e. non-clausal domains. In recent studies on the internal syntax of nominal phrases, such DP-internal predicate displacement operations have been argued to exist. Furthermore, both Predicate Inversion patterns (PM-A) and Predicate Fronting patterns (PM- \bar{A}) have been identified within the nominal domain. The most evident case, presumably, is the nominal construction type exemplified in (10), which I will refer to as the *N of N*-construction (cf. Kayne 1994, Den Dikken 1995):²

- (10) that idiot of a doctor

In this example, the referent denoted by *doctor* is ascribed the

property of being like an idiot. That is, the predicate nominal (*doctor*) precedes the subject over which this property is predicated. Den Dikken (1995) proposes that this construction features Predicate Inversion: the nominal *idiot* originates as the predicate in a DP-internal SC (i.e. XP) and undergoes A-movement to [Spec,FP], crossing the SC-subject *doctor*. As shown in (11), this movement across an A-position requires that the SC-head X raises to a higher functional head position, viz. F. This way, the predicate nominal and the nominal subject are rendered equidistant from the extraction site. In analogy with the appearance of *be* in clausal Predicate Inversion patterns (cf. (9b)), Den Dikken (1995) makes the interesting proposal that the meaningless preposition *of* is the surface reflex of the presence of F in the *N of N* structure. He refers to it as the nominal copula.

(11) $[_{DP} \text{that } [_{FP} \text{idiot}_{t_j} [_F [F+X_i (=of+a)] [_{XP} \text{doctor}[_X t_j t_j]]]]]$

Of course, this analysis extends quite easily to equivalents in other languages. In the following examples drawn from a variety of Romance languages, the italicized element is the inverted nominal predicate and the meaningless element *de/di* is regarded as the nominal copula.

- (12) a. cet *idiot* de Jean (French; cf. Milner 1978)
 that idiot of Jean
 b. il tuo *cretino* di fratello (Italian; cf. Napoli 1989)
 the your cretin of brother
 'your cretin of a brother'
 c. esta *maravilla* de niño (Spanish; cf. Rivero 1980)
 this marvel of child
 d. *idiotă* așat de Maria (Rumanian)
 idiot-the that of Mary

The question arises whether instances of Predicate Fronting are also attested in the nominal domain. Without going into details, for reasons of space, I will simply refer to the proposal by Bennis, Corver & Den Dikken (1998) to analyze the Dutch *wat voor*-construction (cf. (13a)) and the *wat*-exclamative construction (cf. (13b)) as constructions that feature Predicate Fronting, namely of the element *wat* ('what').³ I should like to confine myself here to giving the derived structures of the two construction types.

- (13) a. $[_{DP} \text{wat}_i [_D \text{voor } [_{XP} \text{jongens } [_X \emptyset] t_j]]]$
 what for boys
 'what kind of boys'
 b. $[_{DP} \text{wat}_j [_D \text{een}_i [_{XP} \text{jongens } [_X \text{t}_i] t_j]]]$
 what a boys
 'How many boys!'

Observe that in these structural representations FP is absent. The reason is obvious: No domain extending head movement of the SC-head (X) to a higher functional node F is required, since the interrogative/exclamative predicate does not undergo A-movement, but rather (direct) \bar{A} -movement to [Spec,DP].

Let me close off this section by pointing out the following extraction asymmetry (drawn from Dutch):

- (14) a. **Eiters*; *zijn het* $[_{DP} [_D \text{het } t'_i [_F \text{F}+X_j (=van) [_{XP} \text{jongens } [_X \text{t}_i]]]]]$
 Jerks are it of boys
 'They are jerks of boys'
 b. *Wat*_i *zijn het* $[_{DP} t'_i [_D \text{voor } [_{XP} \text{jongens } [_X \emptyset] t_i]]]$?
 What are it for boys
 'What kind of boys are they?'

This contrast shows that predicates that have undergone DP-internal Predicate Fronting to [Spec,DP] can (sometimes) be removed out of DP (cf. (14b)).⁴ A-moved predicates that have been shifted to [Spec,FP] cannot be subextracted (cf. (14a)).

3. Predicate inversion within the adjectival system. Evidence from degree modification in Rumanian

Consider the following examples from Rumanian (drawn from Grosu 1974 and Mallinson 1986):⁵

- (15) a. Ion e [*extrem* de înalt]
 Ion be:3SG extreme of tall-M.SG
 'Ion is extremely tall'
 b. Maria e [*enorm* de fericită]
 Maria be:3SG enormous of happy:F.SG
 'Maria is enormously happy'
 c. Aleargă [*enorm* de repede] dar înoată cam încet
 run:3SG enormous of quick but swim:3SG rather slowly
 'He runs enormously quickly but swims rather slowly'

- d. Fata e [[foarte harnică] și [*nemaipomenit* de frumoasă]]
 girl-det be:3SG very industrious:F.SG and unprecedented of beautiful:F.SG
 'The girl is very industrious and unprecedentedly beautiful'
 e. un rol [*deosebit* de important in această acțiune] [...]
 a:M. role particular of important:M.SG in this:F.SG action
 'a particularly important role in this action [...]'

The adjectival constructions in these examples feature a degree/intensifying element which modifies the gradable adjective to its right. The degree element and the gradable adjective are separated from each other by the intervening element *de*. This linking element is obligatorily present in these examples: *extrem*(de) înalt*. A further characteristic of these constructions concerns the form of the (adjectival) degree element. As illustrated in (16), it never displays agreement with the subject. It is only the gradable adjective that agrees in gender and number with the subject of the clause (see e.g. (15b)).

- (16) a. *Fată e [enormă de fericită]
 Girl-det be:3SG enormous:F.SG of happy:F.SG
 'The girl is enormously happy'
 b. *Fetele sînt [enorme de fericite]
 Girl-det:PL be:3PL enormous:FPL of happy:FPL
 'The girls are enormously happy'

Superficially, at least, the adjectival pattern *A de A* is reminiscent of the nominal *N of/de N* construction. As we will see below, there are clear syntactic parallels between the two construction types. I will therefore propose that a sequence like *extrem de înalt* in (15a) derives from an underlying SC-structure like (17a). In this structure, *extrem* occupies the predicate position of the SC (i.e. XP) and *înalt* occupies the subject position of XP. Each adjective has a thematic grid associated with it. The adjective *înalt* has two arguments in its grid: a thematic argument (i.e. 1) and a degree argument *G* which encodes the lexical property of gradability (cf. Zwarts 1992, Corver 1997a); *înalt* is interpreted as 'x is tall to degree d'. The degree adjective *extrem* is a one-place predicate which is licensed by predicating over the degree argument (*G*) of *înalt*: 'd is extrem'. This predication relationship is formally expressed by coindexation of the thematic argument of *extrem* and the degree argument of *înalt*; see (17b).⁶

- (17) a. $[XP \hat{in}alt_{<1,G>} [X' X \text{extrem}_{<1>}]]$
 b. $[XP \hat{in}alt_{<1,Gi>} [X' X \text{extrem}_{<1i>}]]$

The surface string *extrem de inalt* is derived by applying Predicate Inversion to *extrem*. Recall this is an A-type movement operation. Movement of the modifying adjectival predicate (i.e. AP) across the A-position occupied by the subject-AP *inalt* does not incur a violation of Locality (i.e. Relativized Minimality) if the SC-head X raises to the functional head position F_i into whose Spec the raised adjectival predicate will land. In (18), *inalt* and *extrem* are equidistant from the extraction site (t_j).

- (18) $[FP \text{extrem}_j [F' F+X_i (=de) [XP \hat{in}alt [X' t_i [AP t_j]]]]]$

Following Den Dikken's suggestion for the *N of N*-construction, I will analyze the meaningless element *de* as the surface realization of F. Thus, *de* is a copular element that shows up in [+N]-domains featuring Predicate Inversion.

If the *A de A* construction is assigned a syntactic structure parallel to that of the *N of N* construction, one expects the two constructions to exhibit parallel syntactic behavior. As a matter of fact, there are certain shared properties that corroborate a parallel treatment of the two construction types.

A first property they share is the impossibility of subextracting the inverted (nominal/adjectival) predicate. Consider, first, subextraction from the *N of N* construction:

- (19) a. *Fools of policemen*, they certainly are —!
 b. **Fools*, they certainly are [— of policemen]!

As shown by the extraction facts in (20), observed in Grosu (1974), subextraction of the modifying AP *extrem* is blocked as well.

- (20) a. *Extrem de desdept* te mai crezi tu!
 Extreme of clever yourself still believe you
 'You fancy yourself extremely clever!'
 b. **Extrem* te mai crezi tu [— de *desdept*]!

The impossibility of fronting the degree element cannot be due to semantic or pragmatic reasons. The lexical item *tare*, for example, has exactly the same meaning as *extrem* but can be reordered to a left peripheral position (cf. (21b)). Of course, fronting of the entire adjective phrase, as in (21a), is also permitted.⁷

- (21) a. *Tare desdept* te mai crezi tu!
 extremely clever yourself still believe you
 'You fancy yourself real clever!'
 b. *Tare* te mai crezi tu [— *desdept*]!

As Grosu also notes, the contrast between (20b) and (21b) arguably relates to the categorial nature of the lexical items involved. *Extrem* is plausibly analyzed as an adjective (AP), while *tare* seems to be more of a true adverb (ADVP). The question, of course, arises what syntactic property this asymmetry between (20b) and (21b) relates to. At this point, I will leave it unanswered. I will come back to it briefly in section 5.

A second property which the *N of N* construction and the *A de A* construction have in common is the fact that removal of the sequence of *N/de A* is not allowed.

- (22) **Of policemen* they certainly are *fools* (N of N)
 (23) **De desdept* te mai crezi tu [extrem —]! (*A de A*)
 Of clever yourself still believe you extremely
 'You fancy yourself extremely clever!'

The ill-formedness of these examples can be explained in terms of non-constituency: the copulas *of* and *de* (i.e. F) do not form a constituent with *policemen* and *desdept*, respectively, that occupy the specifier position of XP in a tree like (8). An alternative analysis, in which the constituent F' is fronted, is ruled out as well: The Proper Binding Constraint (Fiengo 1977) blocks extraction of F', since the trace of the inverted adjectival predicate (t_j in (24)) will not be properly bound when F' is fronted to [Spec,CP]. Notice furthermore that it is generally assumed that \bar{X} -constituents cannot be fronted to [Spec,CP] (cf. Chomsky 1986).

- (24) $[CP [F' X_i + F (=de) [XP \text{desdept} [X' t_j]]]_k [IP \dots \dots [FP \text{extrem}_j [F' t_k]]]]$

4. *Intermezzo on the nature of the landing site*

Thus far, I have argued that the *A de A* construction in Rumanian should be treated on a par with the *N of N* construction. More specifically, I have defended an analysis in which there is a Small Clause (XP) internal to the adjective phrase, whose specifier position is filled

by the gradable adjective and whose complement-position is occupied by the (modifying) degree-adjective. The surface order is derived by applying Predicate Inversion to the degree-adjective. This inversion operation was considered to be movement to an A-position.

Traditionally (cf. Chomsky 1981), an A-position is a position to which a theta role can potentially be assigned. Under this definition, however, A-movement is strictly speaking a misnomer for adjectival predicate inversion in Rumanian, since [Spec,FP] is never occupied by any argument bearing a theta role (like agent, theme, etcetera). Given this, one might argue that [Spec,FP] should be analyzed as an \bar{A} -position, which is traditionally defined as a position which never receives a thematic role. [Spec,CP] and adjunct-positions are considered to be typical cases of \bar{A} -positions. This alternative analysis, however, does not seem adequate either. Why, for example, is it impossible to move the inverted predicate out of the adjective phrase? Furthermore, there is cross-linguistic evidence, that the relationship between a degree modifier and a gradable adjective is much tighter in a (grammatical) sense than that between other types of modifiers and the gradable adjective. Let me give some illustrative examples.

First of all, in Rumanian it is only the degree adjectives that are linked to the modified adjective by means of the element *de*. Domain adverbs like *fizic*, for example, are never linked to the modified phrase by means of *de*.

- (25) Ion e [fizic (*de)] [extrem de bine dezvoltat]
'Ion is physically extremely well-developed'

In Dutch, the closeness of the relationship between the degree adjective and the modified gradable adjective manifests itself morpho-syntactically. As exemplified in (26), certain adjectival degree modifiers can (optionally) carry the inflectional morpheme *-e*, which is obligatory for the attributive (gradable) adjectival head modifying the noun (cf. Corver 1997b).⁸ This phenomenon of optional agreement between a modifier and an attributive adjectival head is only found with modifying degree adjectives. When the modifier does not express degree but rather modality (27a) or temporality (27b), it is impossible for the modifier to share the inflectional morpheme *-e* with the gradable adjective.

- (26) a. een vreselijk(e) dure fiets
a terrible(INFL) expensive bike
'a terribly expensive bike'

- b. een belachelijk(e) dure fiets
a ridiculous(INFL) expensive bike
'a ridiculously expensive bike'
- (27) a. een vermoedelijk(*e) dure fiets
a presumable(INFL) expensive bike
'a presumably expensive bike'
- b. een tijdelijk(*e) goedkope fiets
a temporary(INFL) cheap bike
'a temporarily cheap bike'

A third illustration of the special relationship between a modifying degree adjective and the modified adjectival head comes from Finnish. In this language, (certain) degree elements modifying the adjectival head bear genitive case (cf. Sulkala & Karjalainen 1992; Vainikka 1993). This is illustrated in (28). Importantly, this distribution of genitive case is not attested with other kinds of elements modifying the adjective; see e.g. *rahallisesti* in (28a), which carries adverbial marking (*-sti*).

- (28) a. Juha on [rahallisesti hyvin riipuvainen vanhemmistaan]
John is financially very:GEN dependent on his parents
- b. Hän on noin vanha
He is that:GEN tall
'He is that tall'
- c. Valtavan kylmä
enormous:GEN cold
'enormously cold'

Another phenomenon which suggests that degree adjectives stand in a different relation with the modified adjectival head than other types of modifiers do, comes from scrambling within the adjectival domain. Although the PP-complement to *riipuvainen* in (28a) displays a certain degree of freedom in its placement, there is one clear restriction: the degree modifier can never be separated from the modified adjectival head by the leftward scrambled PP-complement (cf. (29a)). As shown in (29b), the modifier *rahallisesti* can be separated from the rest of the adjective phrase by the leftward moved PP-complement.

- (29) a. *Juha on [rahallisesti hyvin vanhemmistaan riipuvainen]
b. Juha on [rahallisesti vanhemmistaan hyvin riipuvainen]

In view of the above crosslinguistic facts, it seems fair to conclude that the modification relationship between a degree element and the modified adjective is different from the relationship between other types of modifiers and the adjective. The fact that the modifying degree element carries genitive case in Finnish and the fact that it can be involved in an agreement relationship, as in Dutch, is reminiscent of A-positions.⁹ Of course, although the above-mentioned empirical facts are suggestive for an A-type status of the landing site of the inverted adjectival degree-predicate, further research is definitely needed for a proper characterization of the landing site. I will further simply assume that the other types of modifying elements within the adjective phrase are best analyzed in terms of \bar{A} -positions (possibly, adjoined ones).¹⁰

Under an inversion analysis, the Dutch and Finnish adjectival patterns are assigned the structural representations in (30a) and (30b) for the examples (26a) and (28c), respectively.¹¹

- (30) a. [F_i vreseli]ke_j [_F F+X_i [_{XP} t_j t_j]]]
 b. [F_i valtavan]_j [_F F+X_i [_{XP} kylmä [_X t_j t_j]]]

Let me, finally, point out the following examples from Finnish that are quite suggestive for the parallism between the *N of N* construction and the AP-internal degree modification structure. In both examples *helvetin*, carrying genitive case, qualifies the item that follows. (31a) is interpreted as 'a theory which is like hell', i.e. a hell of a theory. (31b) is interpreted as 'cold like hell', i.e. hellish cold. A uniform treatment of the nominal construction (31a) and the adjectival construction (31b) is obviously the null-hypothesis. If the Finnish genitival *N of N*-variant features predicate inversion (of *helvetin*), the same inversion process should apply within the adjectival construction (31b).¹²

- (31) a. se *helvetin* teoria
 that hell:GEN theory
 'that hell of a theory'
 b. *helvetin* kylmä
 hell:GEN cold
 'hellish cold; cold like hell'
 (Vainikka 1993)

5. Predicate fronting and subextraction

Thus far, I have argued on the basis of Rumanian that Predicate Inversion is attested within the adjectival system. The question ari-

ses whether Predicate Fronting, i.e. predicate displacement of the \bar{A} -type, is also found within this syntactic domain. Rumanian again provides the relevant examples.

- (32) a. *Cît de frumoasă e Maria!* (Grosu 1974)

How-much of beautiful is Maria

'How beautiful Maria is!'

- b. *Cît de vechi e acest vin?*

How-much of old is this wine

'How old is this wine?'

- (33) a. *Cît_i e Maria [t_j de frumoasă_i!]*

- b. *Cît_i e [t_j de vechi_i] acest vin?*

(Murrell & Ștefănescu-Dragănești 1980⁵)

In (32), the entire adjective phrase has been fronted to [Spec,CP]. In (33), left branch extraction of the interrogative element *cît* from within the adjective phrase has taken place.¹³ Of course, the pattern *cît de A* is highly reminiscent of the *A de A* pattern, which I discussed in section 3. In fact, the former pattern only differs from the latter pattern in terms of the properties 'interrogativity' and 'exclamation', and not in its categorial features. That is, there are reasons for treating *cît* as an adjectival (i.e. [+N,+V]) element. Like other (attributive) adjectives, it displays, for example, agreement with a modified noun:¹⁴

- (34) a. *cîtă cafea?*
 how-much:F.SG coffee:F.SG
 'how much coffee?'
 b. *cîte cărți?*
 how-many:F.PL book:F.PL
 'how many books?'

In view of its adjectival nature, it is not unlikely that the (interrogative) degree adjective undergoes Predicate Inversion and ends up in [Spec,FP]. The nominal copula *de* shows up as a result of X-raising to F.

- (35) [FP cît_j [_F F+X_i (=de) [_{XP} [_{AP} frumoasă] [_X t_i [_{AP} t_j]]]]]

The interrogative adjectival *cît* differs, however, from adjectival elements like *extrem* in being able to escape from the adjectival phrase. One might want to relate this to such features as 'interrogativity'

(i.e. [+WH]) and 'exclamation' (i.e. [+EXCL]). Suppose that these features are associated with the functional head Deg which heads a DegP-projection, whose specifier position has \bar{A} -properties and can function as an escape hatch for extraction, similarly to [Spec,CP]. Movement of *cit* to the specifier of DegP will then determine the interrogative or exclamative interpretation of *cit*. The resulting structure is given in (36):

- (36) $[_{\text{DegP}} \text{cit}_i [_{\text{Deg}} \text{Deg}]_{\text{WH}} / [+EXCL] [_{\text{FP}} \text{t}'_j [_{\text{F}} \text{F} + \text{X}_i (=de)] [_{\text{XP}} [_{\text{AP}} \text{frumoasal}] [_{\text{X}} \text{t}_i [_{\text{AP}} \text{t}_j]]]]]]]$

This stepwise derivation of the pattern *cit de A* is similar to the analysis of certain *wat voor*-patterns in Dutch as proposed in Bennis, Corver & Den Dikken (1998). They argue that the derivation of such patterns as *wat voor een jongen(s)* (what for a boy(s); 'what kind of boy(s)'), i.e. patterns featuring what they call the spurious indefinite article *een*,¹⁵ involves (\bar{A} -) raising of the predicate *wat* to [Spec,DP] via prior Predicate Inversion to [Spec,FP]. This is depicted in (37):

- (37) $[_{\text{DP}} \text{wat}_j [_{\text{D}} \text{D}] \text{voor}] [_{\text{FP}} \text{t}'_j [_{\text{F}} \text{F} + \text{een}] [_{\text{XP}} [_{\text{NP}} \text{jongen(s)}] [_{\text{X}} \text{t}_i [_{\text{Pred}} \text{t}_j]]]]]]]$

The authors propose, furthermore, that other *wat voor*-patterns, viz. those lacking the spurious indefinite article (as in *wat voor jongen(s)*; what for boy(s); 'what kind of boy(s)'), involve direct \bar{A} -movement (i.e. Predicate Fronting) of the small clause predicate *wat* to the operator position [Spec,DP]. This derivation is given in (38):

- (38) $[_{\text{DP}} \text{wat}_j [_{\text{D}} \text{D}] \text{voor}] [_{\text{XP}} [_{\text{NP}} \text{jongen(s)}] [_{\text{X}} \emptyset] [_{\text{Pred}} \text{t}_j]]]]]$

This \bar{A} -raising of the Small Clause predicate might be at the basis of such structures as in (21b), in which a degree adverb (*tare*) is removed out of the AP. The fact that *de* is absent in these structures (cf. *tare* (**de*) *deştept*) suggests that Predicate Inversion (i.e. \bar{A} -movement) does not apply in adjectival structures in which the adjective is modified by an adverb. Given that \bar{A} -positions typically function as escape hatches for extraction, it does not seem implausible to analyze such adjectival constructions as *tare deştept* in terms of Predicate Fronting internal to the adjectival phrase. Schematically:

- (39) $[_{\text{DegP}} \text{tare}_j [_{\text{D}} \text{D}] \text{Deg} [_{\text{AP}} \text{deştept} [_{\text{X}} \text{X}] [_{\text{Pred}} \text{t}_j]]]]]$

Summarizing, I have identified two types of predicate displacement within the Rumanian adjectival system: Predicate Inversion and Predicate Fronting. The occurrence of these operations internal to the adjectival system strengthens the view of cross-categorical parallelism. The examples from Rumanian feature displacement of an 'adjectival' predicate (with the exception of (39)). As shown in (40), this syntactic category can also be the inverted predicate in clausal (Den Dikken 1995; Emonds 1976; Hoekstra & Mulder 1990) and nominal contexts (cf. Aarts 1994:20; Den Dikken 1995:23):

- (40) *Most embarrassing*_i would have been losing the Cup Final to a second division team _{t_i}

- (41) a. un *drôle* de type (French)
a funny of chap
'a funny chap'
b. la *tonita* de Juana (Spanish)
the silly of Juana
'that silly Juana'

6. Predicate displacement in simili-constructions

In this section I will consider some more examples from Rumanian illustrating the phenomenon of predicate displacement within the adjectival system. Take the following examples, in which the degree of thickness is expressed by a simili expression: *ca peria*. The meaning of the adjectival expression can be stated as follows: 'x is thick to degree d, where d is like a brush'.

- (42) a. Pădurea e [deasă *ca peria*] (Mallinson 1986)
wood-det be:3SG thick:F.SG as brush-det
'The woods are as thick as a brush'
b. Pădurea e [ca *peria* de deasă]
wood-det be:3SG as brush-det of thick:F.SG
'The woods are as thick as a brush'

In the non-inverted pattern (42a), the metaphorical standard of comparison *ca peria* follows the gradable adjective. (42b), on the other hand, exemplifies the Predicate Inversion pattern featuring the nominal copula *de*.

The question arises how to analyze adjectival constructions like these. Let us first consider the simili-phrase introduced by *ca*.¹⁶ Two

potential analyses of this phrase come to mind. One could, first of all, propose that *ca* should be interpreted as an equative/comparative marker (cf. Mallinson 1986: 175) quite parallel to the comparative marker *than* in English, which is often analyzed as a conjunction or preposition-like element that heads the comparative phrase. The second, alternative analysis would interpret *ca* as a pro-predicate element (meaning 'so/as') that has been moved to the specifier position of the comparative/equative head. The two analyses are schematically represented in (43) and (44); the simili-phrase (KP) occupies its base (i.e. post-adjectival) position.¹⁷

(43) $deas\check{a}_{<1,G>} [_{KP} Pred_q [_{K} ca [_{XP} peria [_{X'} X^\circ t_q]]]]$

(44) $deas\check{a}_{<1,G>} [_{KP} ca_q [_{K} K [_{XP} peria [_{X'} X^\circ t_q]]]]$

In (43), *ca* heads a functional projection KP and takes a Small Clause (XP) as its complement, of which *peria* is the subject. The predicate (*Pred*) of the Small Clause is raised to the specifier position of *ca*. In the structure in (44), *ca* itself is the raised predicate and the head of KP is phonetically empty.¹⁸

I will adopt the second analysis here; also in other structural contexts, *ca* appears as a predicative element with the meaning of 'so' (data from Murrell & Ștefănescu-Drăgănești 19805).¹⁹

- (45) a. $ca\ s\check{a}\ vorbi\check{t}i$
so to speak
'so as to speak; in order to speak'
- b. $ca\ de\ obicei$
so of habit/custom
'as usual'

Notice that the structural configuration in (44) is quite parallel to the structure of relative and comparative clauses, in the sense that some 'pronominal' (or maybe better, pro-adverbial) element has been moved to the specifier position of some conjunction(-like) head. A relative clause is generally interpreted as a one-place predicate that restricts the reference of the DP of which it is a part. Movement of the relative pronoun to [Spec,CP] creates a free position (the trace) that makes the clause into a one-place predicate. I will assume that the modification relation between the gradable adjective and the simili-phrase is established in the same way: movement of the predicate *ca* to [Spec,KP] creates an open position within the (small) clau-

se and turns KP into a one-place predicate. This one-place predicate predicates over the degree argument *G* that is part of the thematic grid of the gradable adjective (the modifiee).

The derivation of the construction in (42b) is given in (46):²⁰

- (46) a. $[_{XP} deas\check{a} [_{X'} [_{KP} Spec [_{K'} K [_{XP} peria [_{X'} X^\circ ca]]]]]]$
 b. $[_{XP} deas\check{a} [_{X'} [_{KP} ca_q [_{K'} K [_{XP} peria [_{X'} X^\circ t_q]]]]]]$
 c. $[_{FP} [_{KP} ca_q [_{K'} K [_{XP} peria [_{X'} t_q]]]]] [_{F'} F + X_i (=de) [_{XP} deas\check{a} [_{X'} t_i t_j]]]]$

In (46a), the pro-predicate *ca* ('so/as') is in its base position, i.e. the predicate position of the small clause. In (46b), *ca* has been moved to [Spec,KP]. In (46c), finally, the complex KP-projection has been shifted leftward across the adjectival 'subject' *deas\check{a}*. As a consequence of the raising of the complex predicate, the nominal copula *de* appears.

Notice also the following extraction facts (capitals indicate focus accent):

- (47) a. $Ca\ peria\ de\ deas\check{a}\ e\ p\check{a}durea$
as brush-det of thick.F:SG be:3SG wood-det
'As thick as a brush the woods are!'
 CA PERIA e [— de deas\check{a}]!
 As brush-det be:3SG — of thick
'As thick as a brush it (i.e. the woods) is!'
- b. $CA\ PERIA\ e\ [—\ de\ deas\check{a}]!$
As brush-det be:3SG — of thick
'As thick as a brush it (i.e. the woods) is!'

In (47a), the entire adjectival expression is fronted. In (47b), the KP-projection is moved out of the adjective phrase. This subextraction suggests that the simili-phrase, which – in view of the appearance of the nominal copula *de* – has undergone Predicate Inversion, is subsequently moved to the \bar{A} -position [Spec,DegP]. From [Spec,DegP], the phrase can leave the adjectival phrase. Observe that this derivation is parallel to the one in (36), where the wh-element *cît* is the displaced predicate.

- (48) $[_{DegP} [_{KP} ca\ peria]_j [_{Deg'} Deg [_{FP} t_j [_{F'} F + X_i (=de) [_{XP} [_{AP} deas\check{a}] [_{X'} t_i [_{AP} t_j]]]]]]]]$

7. Predicate displacement in the Italian adjectival system

Thus far, I have argued on the basis of Rumanian that AP-inter-nal degree-modifiers originate in a post-adjectival position and that

their surface position is the result of leftward predicate displacement within the adjectival system. Two types of predicate displacement were distinguished: (i) predicate inversion (an A-movement type operation) and (ii) predicate fronting (an \bar{A} -movement type operation). After this discussion of Rumanian, the question arises whether the displacement of degree-predicates in adjectival constructions is also attested in other languages. A broad cross-linguistic perspective on AP-internal predicate displacement is beyond the scope of this paper. In what follows, however, I will explore the possibility of extending this predicate displacement analysis to Italian adjectival constructions.

Consider, first, the adjectival expression in (49a), the Italian equivalent of the Rumanian expression *extrem de înalt* (see (14a)). Under a Predicate Inversion analysis, the underlying order of the adjective phrase is the one in (49b); (49c) represents the derived order.

- (49) a. Gianni è [estremamente alto]
 Gianni is extremely tall
 b. [_{XP} alto [_X X estremamente]]
 c. [_{FP} estremamente]_i [_F F+X_i [_{XP} alto [_X t_i t_j]]]

The construction in (49a) differs from the Rumanian equivalent in two respects: First of all, the Italian expression does not feature the prepositional element (**estremamente di alto*). Secondly, the Italian degree modifier contains the adverbial marker *-mente*. As for the absence of the prepositional copula, I restrict myself to the observation that although predicate inversion often triggers the appearance of a linking element, it does not seem to be a necessary property. Consider, for example, the following examples, which arguably involve Predicate Inversion of the adjectival predicate (*pauvre/povero*) and the pronominal subject (*moi/me*).

- (50) a. pauvre *(de) moi! (French)
 poor *(of) me
 'poor me!
 b. povero (*di) me! (Italian)
 povero (*di) me
 'poor me!

What about *mente*? One possible treatment would be to say that *mente* is a derivational suffix which attaches to an adjectival stem

and creates a new category, say Adverb. There is an argument, however, which goes against such an analysis and which suggests that *mente* is a word-level category rather than a suffix.²¹ In Italian, you can have open vowels (open *e* and open *o*) only if the vowel is stressed: e.g. *pOvero* (stressed vowel in capital). If you build a derived word out of *povero*, the stress shifts and the *o* becomes closed: e.g. *poverTA*, with accent on *a* and *poverIno*, with accent on the vowel *i*. However, if you build from the adjective *povero* the corresponding adverb with *mente*, the vowel remains open: *pOveramente*. This shows that *povero* retains its own word stress. Thus, *mente* does not seem to be a derivational suffix heading a category Adverb. It rather behaves like a word-level category. In view of its historical relation to the independent feminine noun *mente* ('mind'), it may be characterized as a noun. Observe also that *mente* has retained its grammatical features: it is a nominal element that agrees in gender (feminine) and number (singular) with the adjective. From a synchronic point of view, it seems more appropriate to regard it as a grammatical or semi-lexical noun (cf. Emonds 1985; Corver & Van Riemsdijk (forthcoming)): that is, a noun which is semantically less specific or contentful than lexical nouns (e.g. *car*, *bike*, etcetera). For the moment, I will restrict myself to the observation that the grammatical noun *mente* is comparable to such nominal elements as *body* and *thing* in *some-body* and *some-thing*. I will come back later to this semi-lexical status of *mente*.

If *mente* is a noun (i.e. a word-level category), the question arises how it combines with the adjective (e.g. *estrema*). One way to go would be to say that the string *estrema+mente* is a compound structure (cf. Zagana 1990 for such an analysis for Spanish *mente*-adverbs). Thus:

- (51) [_A extrema] + [_N mente] → Adv°

The word stress pattern of *poveramente* is compatible with a compound analysis. In compounds, an open vowel retains its open character. Thus, within the compound *bEnaccetto* ('well accepted'), you have an open *e*, whereas in a derived word you must have a closed *e*: e.g. *benIno*, with stress on *i*.

Having determined that *mente* is a word-like unit (i.e. not a suffix), let us next address the issue of the semantic relationship between the adjective (e.g. *estrema*) and the grammatical noun *mente*. With Zagana (1990), I will assume that the nominal element *mente* is the external argument (i.e. the subject) of the adjectival pre-

dicare *estrema*. Thus, *mente* satisfies the external argument of the underlying adjective. As a consequence of this thematic relationship between *mente* and *estrema*, the external argument of *estrema* is no longer available for defining a predication relationship between the degree adverb and (the degree argument *G* of) the gradable adjective. Recall at this point, that for the Rumanian string *extrem de inalt*, I assumed that the external argument of the adjective *extrem* predicates over the degree argument *G*, associated with the gradable adjective; see (16a), repeated here as (52a). If, in Italian, the external thematic role of *estrema* is discharged to the nominal element *mente* (see (52b)), the question arises how the modification relationship between *estrema-mente* and the gradable adjective (*alto*) is defined. That is, what predicates over the degree argument *G*?

- (52) a. $\text{inalt}_{<1,G>} \text{extrem}_{<1>}$
 b. $\text{alto}_{<1,G>} [\text{estrema}_{<1>} \text{mente}]$

My answer to this question will be the following: There is an additional head which heads a phrase predicating over the degree argument *G*. This head is the zero equivalent of the word *come* ('like'), as it is used in such sentences as (53):

- (53) a. È [bianco come la neve]
 (It) is white as snow
 'It is white as snow'
 b. È [intelligente come mio fratello]
 (He/she) is intelligent as my brother
 'He/she is as intelligent as my brother'

In (53a), the degree of 'whiteness' is expressed by the simile-expression *come la neve*. The meaning of the adjectival expression can be stated as follows: 'x is white to degree d, where d is like snow'. Observe that (53a) is the Italian equivalent of the Rumanian construction (42a). In the equative construction in (53b), the degree of intelligence is expressed by the equative phrase *come mio fratello*. The meaning of the adjective phrase is roughly the following: 'x is intelligent to degree d, where d is the same as my brother's intelligence'.

As also shown by the following examples, *come* typically heads a projection that predicates over another element within the clause. In the examples in (54), the subject of the predication relationship is an argument denoting an individual: the clitic *lo* in (54a) and the null subject (*pro*) in (54b).

- (54) a. $\text{Lo}_i \text{ considero } [t_i \text{ come un nemico}]$
 Him (I) consider like an enemy
 b. $\text{Per me è } [\text{come un figlio}]$
 For me (he) is like a son

In (53), the projection headed by *come* does not stand in a predication relationship to an argument denoting an individual, but to an argument denoting a degree, viz. the degree argument *G* that is part of the thematic grid of gradable adjectives.²²

Let us return now to the modification relation between *estrema-mente* and the gradable adjective *alto* (cf. (52b)). I assume that there is an additional empty head (K°) which is the zero equivalent of *come*. Under an analysis in which *estrema-mente* forms a compound, we would have a structure like (55). The external role of *estrema* is discharged word-internally to the nominal element *mente*.

- (55) $[\text{KP Spec } [K^\circ (= \text{come})] [\text{estrema}_{<1>} \text{-mente}]]]$

Under the assumption that, parallel to Rumanian, the degree modifier originates in a post-adjectival position, we end up with an underlying structure like (56). The surface order is derived by applying Predicate Inversion to KP; see (57).

- (56) $[\text{alto}_{<1,G>} [\text{KP Spec } [K^\circ [\text{estrema-mente}]]]]$
 (57) $[\text{FP } [\text{KP Spec } [K^\circ [\text{estrema-mente}]]], [\text{F } \text{F+X}_1 [\text{XP alto}_{<1,G>} [X^\circ t_i t_j]]]]$

Notice that in (57), a *come*-like phrase (KP) has undergone leftward displacement. Notice that such a predicate displacement was also attested in Rumanian, viz. the example (42b), which is repeated here as (58).

- (58) $\text{Pădurea e } [\text{ca } \text{peria de deasă}]$
 wood-det be:3SG as brush-det of thick:F.SG
 'The woods are like a brush as thick'

Recall that I argued that in (58), a predicative element (*ca*) was moved to the specifier position of the functional projection KP. Due to the doubly filled XP-filter, the functional head *K* is phonetically empty when there is an overt operator (*ca*) in [Spec,KP]. Notice that such a movement process has not applied in the structural representation of *estremamente alto* in (57); i.e. no predicative element has been moved

to [Spec,KP]. Notice also that the non-overtness of K remains unclear, or at least it cannot be reduced to a doubly filled XP-effect, since no (overt) element has been moved to [Spec,KP]. In other words, why don't we find such sequences as *[[*come estremamente*]/*alto*]?

There is, however, an alternative to the analysis in (57). Rather than analyzing *estremamente* as a compound (see (51)), which is derived by morphological rules, I propose that this string syntactically derives from an underlying structure like (59a). In this structure, the noun phrase *mente* is the subject of the predicate *estrema*. The surface order is derived by moving *estrema* to [Spec,KP], yielding *estrema mente* (see (59b)).²³ Suppose that fronting of the adjectival predicate to [Spec,KP] turns KP into an open predicate. This one-place predicate predicates over the degree argument *G* that is part of the thematic grid of the gradable adjective (the modifiee, e.g. *alto*).

- (59) a. $[_{KP} \text{Spec } [_K K^\circ (= \textit{come})] [_{XP} [_{NP} \textit{mente}] [_X X [_{AP} \textit{estrema}]]]]]$
 b. $[_{KP} \textit{estrema}] [_K K^\circ (= \textit{come})] [_{XP} [_{NP} \textit{mente}] [_X X t_i]]]$

The derived pattern is quite parallel to the Rumanian pattern *ca peria* in (58). The only differences are the following: (i) *ca* is a pro-predicate, whereas *estrema* is not; (ii) *peria* is a lexical noun, whereas *mente* is what I called earlier a semi-lexical or grammatical noun (see Emonds 1985:162). An important property which is shared by *estrema mente* and *ca peria* is the fact that K° cannot be overtly realized; this, I assume, is due to the doubly filled XP-filter.

Let me briefly elaborate on the analysis of *mente* as a semi-lexical or grammatical noun. Emonds (1985:162) informally characterizes these semi-lexical categories as '[...] the most frequently used and least semantically specific members of each lexical category'. They are hybrid categories, in the sense that they display both lexical (e.g. as regards their form) and functional (e.g. closed class-property) properties. Emonds states that the closed class of grammatical nouns in English includes such terms as *one*, *self*, *people*, *thing*, *place*, *time*, and *way*. He further argues that one property of grammatical as opposed to lexical heads is that certain types of transformations only apply to the former. As a consequence, grammatical heads differ in their distribution from lexical heads.

Emonds illustrates this different distribution of grammatical nouns by means of what he calls 'compound pronouns'. These are such items as: *some-one*, *every-thing*, *any-body*, etcetera. He argues that these composite pronouns are derived by moving syntactically the grammatical noun (*one*, *thing*, *body*) to the quantifying element

(*some*, *every*, *any*). One distributional phenomenon quite clearly shows that the grammatical noun has raised to a higher position, viz. the fact that the composite pronoun must precede simple adjectives; see the examples in (60), drawn from Emonds (1985). Observe that lexical nouns do not display such behavior.

- (60) a. Somebody clever is invited. *Clever somebody is invited.
 b. *Housemates clever can be fun. Clever housemates can be fun.
 c. Some clever fellows are invited. *Clever some fellows are invited.

Another asymmetry, observed in Emonds (1985:204), between lexical nouns and grammatical nouns is the fact that the latter do not have plural forms. Compare:

- (61) a. Somebody clever was invited. *Somebodies clever were invited.
 b. Some clever fellow was invited. Some clever fellows were invited.

Given the above-mentioned characteristics of grammatical nouns, it does not seem entirely implausible to characterize *mente* as a grammatical noun. First of all, it has a distribution which differs from that of ordinary nouns, i.e. it combines as a bare NP with adjectival predicates which undergo leftward predicate displacement, yielding the surface pattern *AP+mente*. Secondly, just like the grammatical noun *body* in (61a), it never appears with plural morphology: **estreme-menti* (extreme:F.PL + *mente*:F.PL).

Although the status of *mente* as a grammatical noun deserves further examination, I will restrict myself to the above-mentioned remarks and turn to a (central) assumption I have made thus far, but for which I haven't provided potential empirical support. This assumption is the idea that a string like *estrema-mente* involves a projection KP, which is headed by the covert equivalent of *come*. Support for the presence of such a KP-projection would come from the overt appearance of *come* in certain adjectival environments.

I would like to argue that *come* surfaces in such exclamative constructions as in (62):

- (62) Come è brutto!
 How (he/she/it) is ugly
 'How ugly he/she/it is!'

