

ON THE ROLE OF (RE)LABELLING STRATEGIES IN THE DIACHRONY OF COMPLEX PREPOSITIONS DENOTING AXIAL PARTS

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Abstract. The paper is devoted to the description and the history of Genitive assigning prepositions, a puzzling class of lexical items (e.g. *înaintea lui* (before him/in front of him), *îndărătul casei* (at the back of the house)). Syntactically, they show a mixture of prepositional and nominal properties. Semantically, in construction with the Genitive complement, they may denote *axial parts*, i.e. regions or spaces projected from the Ground object denoted by the Genitive. In this respect, they behave like nouns which are specialized for expressing axial parts. The biggest puzzle is, however, raised by their internal structure, which incorporates several independent syntactic items under a single prepositional head. The diachronic analysis that we propose for the P *înainte* is an attempt to understand this internal structure.

On the theoretical side, we claim that the diachronic development of prepositions like *înainte* follows naturally from a (re)labelling strategy that assumes that when two constituents merge, it is the one that has a still unvalued feature which projects its label.

Keywords: Genitive assigning prepositions, axial part, (re)labelling algorithm.

1. AIM OF THE PAPER

Romanian has a well-represented class of genitive assigning prepositions, like *înaintea casei* (in front of the house), *îndărătul casei* (at the back of the house), *dinăuntru casei* (from inside the house), *dinafara casei* (from outside the house), and others.

The goal of the paper is to offer a diachronic analysis of these Prepositions (=Ps), by presenting a detailed analysis of the development, from Latin to Romanian, of a typical member of this class, namely, the P *înainte(a)* (forward/before, in front of).

The puzzle is to account for the incorporation of several otherwise independent syntactic (not morphologic) units, nominal and prepositional, under a single prepositional node. We argue that this accumulation is triggered by the need to delete unvalued features, Case in particular.

At each step of the analysis, due attention must be paid to what Chomsky (2013) calls the Labelling Algorithm (=LA). If correct, this analysis offers empirical support in favor of including the LA among the useful tools for diachronic analysis.

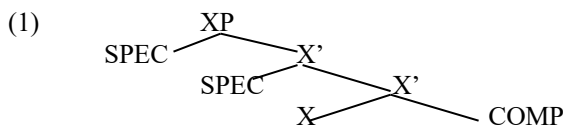
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In the first part of the paper, we briefly present some relevant aspects of the LA. The second part is devoted to the analysis of the genitive assigning Ps.

2. ADVANCES IN (RE)LABELLING THEORY

2.1. The Labelling Algorithm

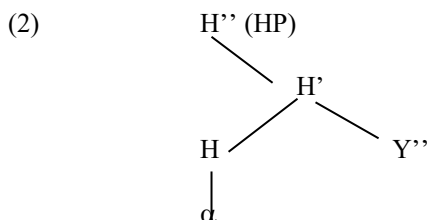
One of the changes brought about by the MP is the at least partial abandonment of X'-Theory, replaced first by bare phrase structure (Chomsky, 1995) and then by Merge accompanied by a *Labelling Algorithm* (=LA), (Chomsky, 2013). As a module of PP grammars, X'-theory departed from the standards of economy and simplicity required by the Strong Minimalist Thesis (=SMT). Thus, Chomsky (2013: 42) comments that "Under the simplest conception of Merge, External Merge (X,Y) yields {X, Y}, with no projection or order, and independently of the character of X and Y. X-bar theory imposes a further condition: Merge is always to a head which projects universal endocentricity, as well as the Concepts, Specifier (SPEC, second Merge), and Multiple SPEC". These notions are not definable under the simplest form of EM, and endocentricity, where it exists, derives from some other source.



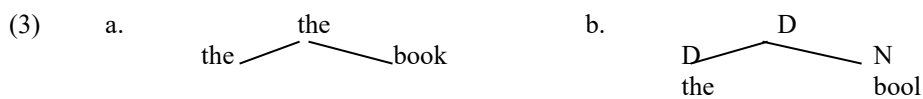
In the interest of truth, one must say that universal endocentricity carried over to the Bare Phrase Structure model which represented a simplification, rather than a rejection of X'-Theory.

A further question is whether or not objects constructed by Merge are identified by a determined label, as happened under X-Theory and Bare Phrase Structure. The current position is that labels are needed, but they do not exist as syntactic objects and must be derivationally supplied, using an independent supplementary LA.

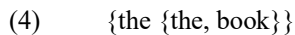
Thus, Chomsky rejects the traditional labelling schema, according to which every node immediately dominating a terminal symbol α drawn from the lexicon is labelled by a syntactic category (H) and the nodes dominating it inherit that syntactic category, augmented with bars to indicate the projection levels.



Chomsky argues that the bar diacritics violate the Inclusiveness Condition (an important principle of economy). As known, a derivation starts with a numeration, which is composed of only lexical items (whether functional or lexical) and thus does not include category labels. “A perfect language” should meet the condition of inclusiveness: any structure formed by the computation is constituted of elements already present in the lexical items from the numeration; no new objects are added in the course of the computation apart from arrangements of lexical properties. The addition of bar labels is an infringement of Inclusiveness, since they are not part of the information associated with lexical items. Therefor minimal design implies that non-terminal nodes are directly labeled by the lexical items themselves (3a), or, by the categorial features of the lexical items, which are bundles of features and, therefore, *include categorial features* (3b).



Even the tree in (3) is non-minimal, since word order information is also indicated by the PM. Simplest Merge is simply an operation of set formation.



With Merge reduced to set formation, two more issues arise. a) First, whenever two syntactic objects are merged together, it is necessary to univocally determine which one of the two will transmit its label to the mother node. This is the task of the intensely investigated LA (e.g. Chomsky 2013, Chechetto and Donatti, 2015, Bianchi 2017, a.o.). b) The deeper question arises, however, as to why labels are needed at all. One possible answer is that a node must be labelled in order to be visible to further linguistic computation. In other terms, it is likely that labels are required for the proper operation of narrow syntax itself (see Chechetto and Donati 2015, 156–157 for discussion). This implies that all non-terminal nodes must be labelled as soon as they are formed by an application of External or Internal Merge, an assumption that I have adopted. An alternative plausible view is that labels are also or only required at the external interfaces, in order for syntactic objects to be legible to the external systems. As shown by Bianchi (2017: 3), this has different implications for the LA. For instance, labelling might be delayed until the phase level, when the syntactic object is transferred to the external systems. In fact, in Bianchi (2017) discusses the hypothesis that category labels are required at the interface with semantics, and she furthermore suggests that category labels become useful to the semantic component, just in case each (categorial label) corresponds to exactly one semantic type, because it is actually the semantic type that makes the structure legible to compositional interpretation rules.

On the working of the LA. From a minimalist perspective, the LA simply consists in minimal search: namely the set formed by Merge inherits the label of the closest element.

a. Consider Merge of a head H with a non-head, dubbed XP for convenience, yielding the unlabelled set {H, XP}. Here XP stands for a set properly containing another head X, hence more precisely, the set to be labelled is {H, {X...}}. As immediately apparent, H is clearly closer since it is a member of the outermost set. This corresponds to the idea that when a head selects a phrase, it is the head that projects (endocentricity).

b. Consider now combining two non-heads, XP and YP. In such a situation a labelling problem arises. In the set {XP, YP}, the head of neither constituent is closer to the outermost set. Thus, the LA cannot determine a unique label for the set {XP, YP}. One solution is to copy one of the terms to a different position. The assumption is that a constituent is a member of a set if all occurrences of that constituent are members of the set. Under these assumptions, it will be YP that transmits its label to the mother-node, since XP has moved.

- (5) a. XP... {XP, YP}
- b. XP ~~XP~~ — YP — YP

The perspicuous reader will have identified the most frequent English situation when the LA operates as in (5a, b) above, namely the movement of the subject from its ν P internal position (Spec, ν P) to the position Spec, T, in a transitive configuration as the one below:

- (6) a. [T [β EA [δ ν^* [V IA]]]]
- b. [T_P EA T [~~β EA~~ [δ ν^* [V IA]]]]

Here the External Argument (=EA), a non-head is merged with the projection δ of ν^* , which is also a non-head, since it includes the V and the internal argument (=IA), so that the mother node cannot be labelled and the derivation cannot continue. The solution proposed in Chomsky (2013) is to move away the External Argument and attach it to the Projection headed by T. If the subject has moved away, the constituent β will successfully inherit the label of δ , which is ν^* .

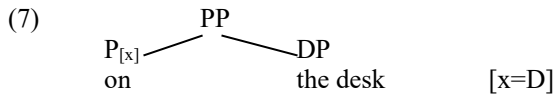
In time, other motivations for labelling strategies have emerged. For instance, it has been shown that syntactic/semantic ambiguities can simply represent different means of categorizing the same structure.

2.2. Preposition or determiners?

Expectedly, labelling is influenced and influences the only other operation of narrow syntax which is Agree, the feature-checking operation of the MP. In a series of papers on oblique cases in Romance and other languages, Manzini (2019) and her associates propose that if one of the members of the set to be labelled is *active* because *it has an unvalued feature* and will have to enter an operation of Agree at some further step, it is *that constituent which will project its label on the newly formed constituent*. This move allows the derivation to continue and to converge at the interfaces. Starting from this LA, Manzini (2019) suggests that in [P DP] or [K DP] structures, where K and P are oblique Ps or cases, either P/K or DP can label the resulting set. Which option is taken depends on which of the two constituents has initiated Merge, in the [P, DP] configuration. Let us consider the two options in turn.

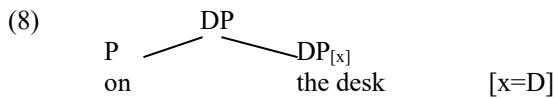
Consider the structure in (7). As always, we assume that the P *on* is an elementary predicate endowed with a relational content (object placed on surface), which as such requires the satisfaction of two argument places. As suggested by Manzini, “one may conceive of

argument saturation as an identification of the referential property D of DP with an open variable slot of *on*, [hence $[x] = D$], as in (7). P probes DP in such cases, it bears the active feature and will project its label. (2019: 38).



If PP/KP is the resulting label, the constituent does not provide a Goal for Agree, since the P and the DP normally satisfy their needs forming a self-sufficient combination. Ps are predicative categories endowed with uninterpretable ϕ -features, as well as a Case feature. They are equally capable of theta marking their complements.

From the point of view of labelling, (7) is also what Chomsky's LA predicts, since P is the closest /closer head. Let us consider the other labelling option now, the one that is not covered by Chomsky's LA, in (8).



Suppose the embedded DP must be visible, because it must get both a θ -role and Case. In such contexts it is the Case feature of the DP that initiates the search for a case-assigner, say, P, and it is the DP that projects its label on the nominal.

This dual analysis of the same configuration can account for the dual agreement pattern for the same sentences in Italian pseudo-partitives, illustrated by Manzini (2019: 36). Recall that in partitives the P is flanked by two nominals.

- (9) [DP **una** [NP **parte** [PP di [DP (i) senatori]]]] si è astenuta (head agreement)
 'A part of the senators has abstained.'
- (10) [DP una parte] [DP di [DP (i) senatori]]] si **sono** astenuti (embedded agreement)
 'A part of the senators have abstained.'

The net result of research on (re)labelling is that categorization has become more flexible, in that the constituent which projects its label is the one that acts as the Probe, bearing the unvalued feature, involved at a particular step in the derivation.

2.3. Relabelling changes occur both in synchrony and diachrony

Since relabelling changes are triggered by the (in)visibility of particular features of lexical items and it is well-known that features of lexical items may change in time, it is expected that relabelling changes occur in diachrony as well.

As an example, the relabelling of a PP as a DP is well-known in Romance: An intensely investigated phenomenon is the reanalysis of the prepositions *DE* (*Fr.*) and *Italian DI* (*It.*), in partitive article constructions, where they are fused with the definite article

composing the partitive article. The initial PPs are re-analysed *as indefinite Determiners*, ultimately an instance of relabelling a PP as a DP (Ihsane 2008 for French, Cardinaletti and Giusti 2016 for Italian).

Thus, Ihsane (2008) shows that the partitive article construction in French has a double interpretation. In an older use (11a), the partitive article may have a genuine partitive reading, now infrequent and possible only with a limited number of verbs. In a second current use (11b), the partitive article may have a quantitative reading, roughly corresponding to bare plurals or mass noun constructions in English.

- (11) a. J'ai mangé **du gâteau**, dont il a aussi mangé d'ailleurs.
I have eaten of.the cake of which he has also eaten besides
(Ihsane 2008: 126)
- b. J'ai mangé **du gâteau**, ce qu'il a aussi mangé d'ailleurs.
I have eaten of.the cake this which he has also eaten besides
(Ihsane 2008: 126)

In the partitive reading (11a), the phrase in bold, *du gâteau* is a PP. As such the partitive article phrase blocks the extraction of any PP embedded in the partitive article phrase. For example, in (12a) below the PP *de Zola* (of Zola) has successfully been extracted out of the DP *deux livres de Zola*, while, as shown in (12b), the same PP *de Zola* cannot be extracted out of the phrase *deux des livres de Zola*, since *des livres de Zola* is a PP itself.

- (12) a. C'est de Zola que j'ai lu **deux livres**
It is of Zola that I have read two books.
(Ihsane 2008: 132)
- b. *C'est de Zola que j'ai lu **deux des livres**
It is of Zola that I have read two of.the books
(Ihsane 2008: 132)

On their second, quantitative reading illustrated in (b), partitive article phrases undoubtedly have DP properties. One of them is occurrence in subject position, illustrated in (13b).

- (13) a. La corde traînait par terre.
the rope was.lying on the floor.
(Ihsane 2008: 135)
- b. De la corde traînait par terre.
of.the rope was.lying on the floor.
(Ihsane 2008: 135)

Additional evidence for the dual categorization of partitive article phrases in French is available in (Ihsane 2008: Chapter III). The diachronic change involving relabelling is from a PP to a DP.

3. THE ANALYSIS OF ROMANIAN GENITIVE ASSIGNING PREPOSITIONS

3.1. General properties of Romanian Genitive assigning Prepositions

Genitive-assigning Ps have striking syntactic and semantic properties. In their definite form they license Gen complements, in their indefinite form they license Dative clitic-doubled complements. The present analysis is limited to the definite Gen assigning Ps. The indefinite form is also used adverbially, mostly with a different interpretation (Path, Goal).

- (14) a. *Ursul a ieșit înaintea lui Ion*
 bear.the has come.out in.front.the Ion.Gen
 ‘The bear has appeared in front of Ion.’
- b. *Lui Ion i-a ieșit înaintea un urs.*
 Ion.Dat him.Dat.cl has come.out in.front a bear
 ‘A bear has come out in front of Ion.’
- c. *Mergi mereu înainte!*
 go.Imp always forward
 ‘Keep going forward!’

The class of Gen assigning Ps includes at least the elements listed in (15), which have a complex internal structure including (at least) a P, namely *în* (in) or *din* (from), the latter itself a compound P (*de+în*) – and some incorporated (definite) nominal element, not easily identifiable for the modern speaker

- (15) a. The IN series: *afară/în afară* (outside); *înainte* (forward, ahead), *înapoi* (back(ward)), *îndărăt* (at the back of, back, behind), *înăuntru* (inside);
- b. The DIN series; *dinafară* (from outside, outside), *dinainte* (forth, in front of), *dinapoi* (back, at the back of), *dindărăt* (back, at the back of), *dinăuntru* (from inside).

Thus, these Ps are complex polymorphemic constituents, and show mixed nominal and prepositional properties. Their distribution is that of PPs, but their morphosyntax is largely nominal. A striking nominal property of these Ps (also discussed in Nedelcu (2019:396-397)) is that they combine with the definite article, i.e. they must be nominal stems specified for [\pm definite]. Furthermore, if these stems may combine with the definite article, then they must be fully specified for gender/number/case, since the definite article cannot be used otherwise. Like nouns, these Ps are gender-marked according to the phonology of their stems. Preposition ending in a consonant are interpreted as masculine, Ps ending in *-e/ă* are treated as feminine, and the definite article varies accordingly, as shown in (16).

- (16) a. *îndărăt(u)l* [M]
 b. *înainte+a* [F]

The most special feature of the Gen assigning Ps is, however, their semantic interpretation. In the Gen construction, they usually denote *axial parts* in the sense of Svenonius (2006). This interpretation is brought out by paraphrasing the Gen Ps in (17a), (18a), in terms of the PPs in (17b), (18b), which include typical nouns that may denote axial parts (*față* (face)/*spate* (back), and unsurprisingly select a Genitive complement.

So, the prepositional axial parts in (15) should be studied on the more explicit model of the PPs (17b) and (18), which contain a LocP followed by a noun denoting an axial part.

- (17) a. *O mașină în viteză a ieșit înaintea mea.*
 a car in speed has come.out in.front.of I.Gen
 ‘A car at full speed appeared in front of me.’
- b. *O mașină în viteză a ieșit în fața mea.*
 a car in speed has come.out in face.the I.Gen
 ‘A car at full speed appeared in front of me.’
- (18) a. *Îndărătul casei era o grădină.*
 behind.the house.the.Gen was a garden
 ‘Behind the house there was a garden.’
- b. *În spatele casei era o grădină.*
 in back.the house.the.Gen was a garden
 ‘At the back of the house, there was a garden.’

In the next section we briefly present the properties of nominal axial part, to prepare the ground for the analysis of the prepositional axial parts, which represent the focus of our discussion.

3.2. On nominal axial parts

Most languages have “complex prepositions”/“prepositional phrases” based on nouns denoting body parts or parts of objects: English: *in front of/ on top of*, etc., Romanian *în fața/în spatele/în fundul, la picioarele*, etc, French: *en face de/en tête de/au pied de/au milieu de*, etc. (Roy, 2006).

All the nouns mentioned in such phrases have a double meaning. They may denote a specific (body)-part or part of an object, this is their ordinary N use, and, on the other hand, they may denote a particular region, a space which is projected from the respective object part, interpreted as Ground object in a Figure-Ground relation. This is the Axial Part meaning (which is determinerless in English).

- (19) a. There was a kangaroo in *the* front of the car.
 b. There was a kangaroo on *the* front of the car.
- (20) a. There was a kangaroo in front of the car.
 b. *There was a kangaroo on front of the car.

Example (20a) refers to a *space* projected forward *from the car* as *ground*, while in (19a) *front* denotes a particular space inside the car.

Similarly, Romanian nouns like *față* (face), *spate* (back) in LocPP also have a double interpretation. They may denote a specific part of an object, as in (21) where *față* denotes

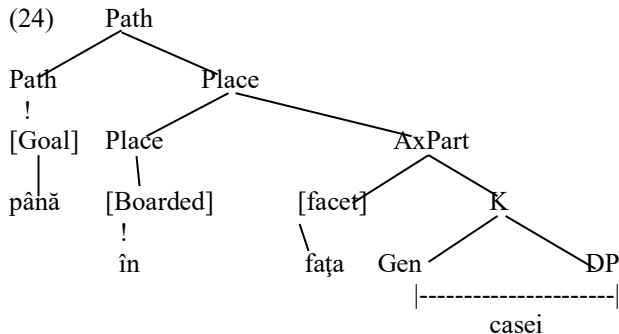
a specific surface on the car. Alternatively, *fața* may denote a particular region, which is projected forwards from the surface of the car, viewed as a ground object in a Figure-Ground relation, in (22).

- (21) *S-a luat vopseaua de pe fața mașinii.* (object part)
SE.refl.Acc.cl.-has come.off paint.the from on face.the car.the.Gen
'The paint has come off the surface of the car.'
- (22) *Pisica stătea în fața mașinii.* (region, axial part)
cat.the was.sitting in face.the car.the.Gen.
'The cat was sitting in front of the car.'

Axial Parts represent a *cognitive category* as suggested by Jackendoff (1996). Svenonius (2006) argues that a PP containing a nominal axial Part may include the cognitive categories in (23), (24), all of which are functional elements in a cognitive configuration. In (23), for English and (24) for Romanian we sketch Svenonius' syntactic analysis. The axial parts are complements of a LocP, and K is a case marker (a preposition or some inflectional marker) of the complement of the axial part, which expresses the Ground object.

- (23) (Path) > Place > AxPart > K DP
in front of the car

(adapted from Svenonius 2006).



In the following analysis we will be using the syntactic categories which are values of these cognitive categories in Romanian. We do not believe that AxParts represent a distinct syntactic functional category. Rather, at least in Romanian, axial nouns have the same morpho-syntactic properties as regular nouns, and should be treated as such. (See Matushansky (2019) for a similar proposal.)

The main identifying property of nominal axial parts is their spatial denotation. Axial-parts nouns project an abstract meaning [region], further delimited by the genitive complement of the axial noun, which denotes the Ground Object. Matushansky (2019) successfully argues that nominal phrases headed by nouns denoting axial parts are *weak definites* in the sense of Carlson (2006). The weak definite interpretation accounts for certain

important distributional limitations on axial nouns. Thus, they typically do not vary for number, they only occur with a limited number of determiners. In Romanian the only D they combine with is the definite article. Moreover, they are *relational nouns*, necessarily selecting an overt or covert complement. Given these limitations axial-part nominals should be included in the class of *semi-lexical nouns*.

4. GEN ASSIGNING PREPOSITIONS, A CLASS OF PREPOSITIONAL AXIAL PARTS

4.1. The axial part interpretation of Gen assigning Prepositions

In a previous paper (Cornilescu, 2016), we claimed that the Gen assigning Ps actually denote axial parts. The P itself denotes the space projected from some Ground object denoted by the Gen. Complement. This interpretation is encouraged by the equivalence of Gen assigning Ps (e.g. *îndărătul casei* (behind the house)) and LocPPs containing nominal axial part (*în spatele casei* (at the back of the house)), already noticed above.

The axial part meaning of these Ps is also apparent in the range of acceptable modifiers. Axial parts are surfaces and as such they can be measured (as in 25) and compared (26) These modifiers bring out the axial component in the interpretation of the Gen-assigning Ps.

- (25) *Mașina luase foc la doar câțiva metri înaintea/înapoia mea.*
 car.the had-taken fire at only a-few meters in-front.the behind.the I.Gen
 ‘The car had caught fire just a few meters in front of me/behind me.’
- (26) *Se aplecase și mai înafara ferestrei.*
 SE refl leaned even more outside.the window.the.Gen
 ‘He had leaned even more outside of the window.’

Continuing the examination of Gen-assigning Ps, we tentatively extend it to a diachronic analysis of the axial-part Ps. A suitable diachronic analysis should, in the first place, explain what led to the incorporation under one lexical head (P) of several formerly free syntactic constituents, nominal or prepositional.

4.2. The internal structure of axial part Ps, a diachronic analysis of *înainte*

According to DLR, the Romanian complex Ps in (15) are based on the re-analysis of Latin Ps (e.g. Lat. *ante/OR ainte*, underlying *înainte*) or Latin PPs (e.g. Lat *ad foras/OR afoară*, underlying *afară* (outside)), which served as stems for further morpho-syntactic development.

The trigger for development was a change in the properties of the Latin or Old Romanian underlying prepositions or PPs. As known, lexical prepositions play a double role, assigning a θ -role and Case to their complement. In time, a P may lose either of these properties.

In the history of axial parts Ps, the underlying Latin prepositions or PPs *lost their case assigning feature* at some point, becoming unable to license an overt complement. They did retain their θ -marking ability, however.

Two of these complex Ps more clearly show their diachronic evolution, since they “wear their history on their sleeve”: these are *înainte* and (*în*) *afară*. The former is analysed below, in the hope that results are relevant for all the items in (15). The examples for the diachronic analysis are taken from DLR (2010), TOMUL VI.

Înainte – is based on the Latin ablative P ‘*ab+ante*’ (in its turn including *ab* (of, from) + *ante* (before)), meaning (from before, in front of). The oldest attested Romanian form of *abante* has been preserved as *ainte* (see DLR (2010), TOMUL VI: 546).

While in Latin the combination *abante* is a P which may case and θ -license its overt object, OR *ainte* has a θ -feature but no longer a case feature. Loss of the case feature (probably related to the loss of Latin Case morphology) is a process which affects all Latin prepositional compounds found in the structure of the Romanian genitive assigning prepositions. Thus in OR *ainte* functions as an *adverbial particle*, mostly with a temporal interpretation.

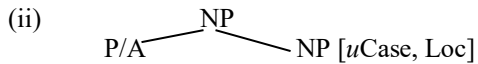
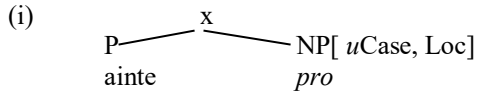
- (27) a. *Ainte tre(i)mes o carte la voi*
before sent.I a letter at you
‘I sent you a letter before.’
- b. *Niște Sârbi ce-au fost la Mihai Vodă*
some Serbs that-have.they been at Mihai Prince
mainte.
m(ore)before’
‘Some Serbs who had gone to Prince Mihai earlier...’
- c. *Până nu vom vedea mainte semne minunate nu vom crede*
till not will.we see earlier signs wonderful not will.we believe
‘Before we have seen wonderful signs, we won’t believe it.’

Ainte is used as a time adverb/particle in ORom, as in examples (27). Interestingly the comparative *mai* (more) could modify *ainte*, producing the fused form *mainte* ‘earlier’, as in (27b-c). Importantly, *ainte* has no overt object and does not normally select NP. When it does, the noun is case licensed by the preposition *de* (see (28a-b)).

- (28) a. *Dumnezeu ce e ainte de veac*
God who is before of time
[Compare Lat. *qui est ante saecula*]
- b. *Venit-ai încoace ainte de vreme a munci noi*
come-have.you here before of time to torment us

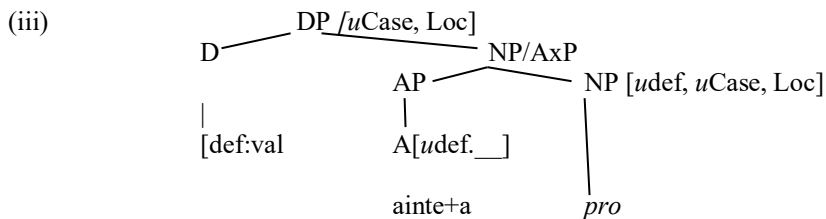
The internal structure (derivation) of the complex P The syntactic object which results from merging the Particle/Prep *ainte* with an NP[*uCase*] yields the configuration below: In this configuration the NP has an active Case feature, and thus, in agreement with the LA discussed above, it will be the NP/DP which projects, instead of the Preposition, yielding the configuration (29-ii).

(29)



As part of the newly created NP, *ainte*, before ' becomes a nominal category, possibly a prenominal adjective (A), capable of *theta assignment*.

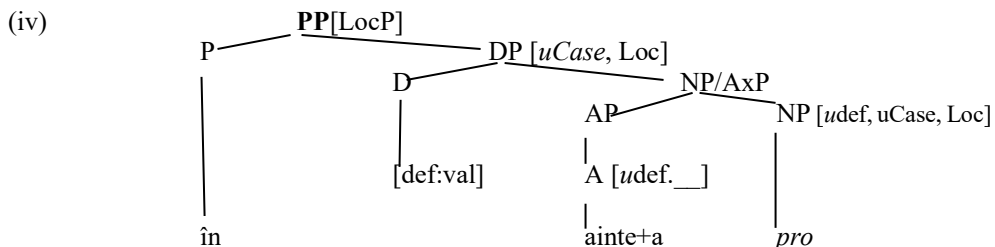
If the NP is also marked as definite, getting the feature [udefinite], a DP will be projected on top of the NP, in configuration (29-iii) below. Adjectives agree in ϕ - features and definiteness with their nominal heads in Romanian. The [udef] feature is copied on the adjective, which is higher, and thus closer to D. Since the nominal head is null, the definite article is realized on the Adjective.



Thus, in order to case license the nominal, in (29-ii), it is the unvalued case feature which projected, eventually yielding the relabeling of the PP as a DP (29-iii). In configuration (29-iii), the case assignment problem has been solved, since the NP *pro* can always license a genitive complement.

At this point, the derivation meets an important problem, the categorial shift from a PP to a DP is not overtly signalled by any syntactic constituent, and the DP still has an active case feature.

The NP or DP hasn't been case licensed, therefore the projection may be extended by merging a case assigning category, which is a Preposition, in the case at hand, the Preposition *în*, producing the definite complex Preposition *înaintea* in (29iv). The P *în* thus plays a double role, it assigns case and, since Ps are regularly followed by nouns, it signals the presence of the incorporated DP.



The P *în* has an active case feature and projects the locative PP. As a relational category par excellence the P needs to identify a constituent with a D feature (a complement) and perhaps also a subject. A second categorial change thus occurs, from DP to PP. From a semantic perspective, when the preposition has been added, the PP overtly shows the cognitive configuration typical for axial parts: (Path) > Locative > Axial Part, as in (24) above.

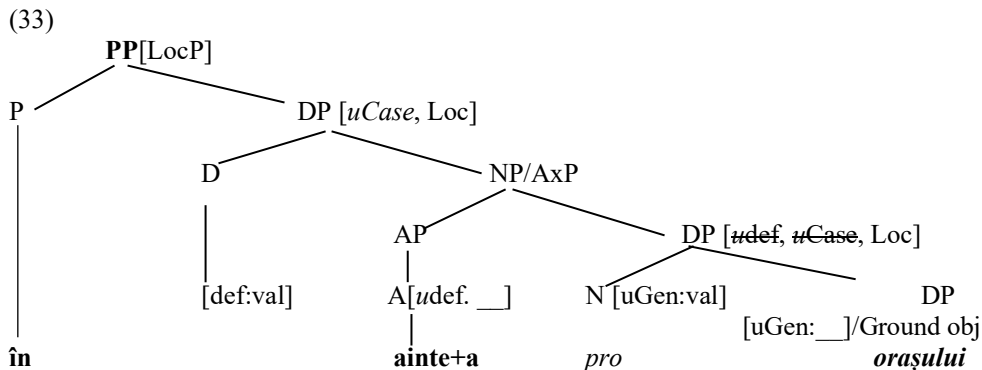
There is abundant evidence that *înainte(a)* projects a PP, supplied by its distribution: *Înainte*-phrases may be arguments of transitive or intransitive verbs that select a Locative or (Path)Goal complement (example (30)). Secondly, they function as predicatives after *be*, or other link verbs (31). Thirdly, they appear as adjuncts (32).

- (30) *Nu mai pune carul înaintea boilor / în fața boilor/ acolo.*
 not more put.Imp cart.the before oxen.the.Gen in front.the oxen.the.Gen
 there
 ‘Stop putting the cart before the oxen/in front of the oxen/there!’
- (31) *Magaziile veneau înaintea orașului/ în fața orașului/ acolo.*
 storehouses.the came before city.the.Gen in front.the of city.the.Gen there
 ‘The storehouses were before city.’
- (32) *Înainte guvernului/ în fața guvernului/ acolo*
 before.the government.Gen in front.the government.the.Gen there
 era amenajat un parc.
 was set.up a parc.
 ‘Before the government building, a parc was set up.’

The representation in (29-iv) is incomplete, in as much as it says nothing about how the genitive complement of the axial-part preposition is licensed. Recall that the axial part P denotes a part (the interior/the front, the back of) a space, delimited from a *Ground Object* which is always semantically implicit, and for definite prepositions like *înaintea*, it must be overtly expressed. Also recall that constituents which denote axial parts are semi-lexical and, as such, they must be relational, necessarily selecting an argument. In (29-iv), *în* has licensed and case-marked its argument DP, and the NP inside the DP can select, case mark and θ - mark a Genitive complement.

We propose that unlike full lexical nouns, which cannot directly case mark their genitives, but do so by means of functional structure (some AgrGen phrase), semi-lexical nouns have an inherent Case feature which they project on their complements thus licensing them. The idea that inherent cases are directly licensed by lexical heads goes back a long way, as shown in Woolford (2003).

Under these assumptions, case assignment and constituency become perspicuous. ÎN assigns Acc Case to the axial part (DP) and the relational semi-lexical axial N assigns inherent Genitive to its complement. The Axial nominal head is the null pronoun *pro*, which precisely occurs in Case-marked positions. The complete structure of the axial part preposition is (33).



Examples (34), (35) illustrate the complete configuration (33).

- (34) *Au dus-o înaintea celui zmeu.*
 have taken-her in-front.the that.Gen dragon
 ‘They brought her in front of that dragon.’
- (35) *Am înfruntat pe împărat înaintea a tot sfatul.*
 have.I confronted PE emperor in.front.the AL whole council.
 ‘I faced up to the emperor before the whole council.’

Polysemy Interestingly since typical axial nouns, like *faţă*, *spate*, etc. develop a typical polysemy, denoting *either a specific part* of some object, or a region generated starting from the object part as a ground object, we find a parallel tendency towards polysemy, with the Prepositional axial parts under discussion, except that the direction of development is reversed: it is the axial part interpretation which comes to also denote a part of an object. Thus in the following attested example (36), *înaintea coloanei* denotes the “front part of the procession” (i.e. the Angel of God is a part of the procession) or the Angel may be marching at a distance from the procession, as the tanks do in (36b).

- (36) a. *Îngerul lui Dumnezeu mergea înaintea coloanei.*
 angel.the God.Gen was walking in-front.the column.the.Gen
 ‘God’s Angel trod at the front of the procession.’
- b. *Tancurile erau înaintea soldaţilor.*
 Tanks.the were in+front.the soldiers.the.Gen
 ‘The Tanks were in front of the soldiers.’

In conclusion, prepositional axial parts exhibit a reverse semantic evolution, i.e. from an axial part denotation to denoting a part of an object. Here is one more example:

- (37) a. *Pe dinafara horii erau mulţi dascăli*
 on outside.the hora.the.Gen were many schoolteachers.
 ‘Outside the hora there were many school-teachers.’
 (axial part interpretation)
- b. *A vopsit gardul pe dinafara (lui).*

- (40) LocP – D
 LocP – D – N

It is immediately apparent that spans leave the A out, since it is a specifier rather than a complement of the nominal head.

This problem is naturally fixed in representation (39), where the span sequence now includes the following spans, which can form a constituent, since they form a sequence of c-commanding heads.

- (41) LocP –D
 LocP –D – A
 LocP –D – A – N

The last two spans are properly anchored in lexical categories and the span correctly spells out as *înaintea*. Thus, a single item may correspond to several terminals, where each terminal bears a distinct label. Observe that this approach predicts the existence of expressions whose behavior corresponds to a mixture of prototypical categorial properties, as apparent in the mixed properties of Gen assigning Prepositions

6. CONCLUSIONS

1. The evolution and the current internal structure of Genitive assigning prepositions is motivated by very general constraints on labelling and feature checking.
2. Relabelling strategies are efficient tools for solving syntactic puzzles and producing more economical and better justified derivations, in the spirit of the SMT.
3. The more general claim of the paper is that relabelling is another form of re-analysis, which actively contributes to syntactic change.

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