Latin as an articleless DP language
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1. Introduction
1.1. Aims

✓ To provide a descriptive account of the syntax of Latin nominal modifiers (demonstratives and adjectives) based on quantitative and qualitative data.
✓ To show that despite appearances, there is strong evidence internal to the DP/NP parameter (Boskovic 2005, 2008, a.o) to assume a highly developed functional structure in Latin nominal expressions including a DP.
✓ To derive marked orders proposing a left-peripheral projection (LPP) above DP hosting discourse-driven movements of full constituents (genitives, DPs, APs and PPs), in the spirit of Giusti (1996, 2006) as applied to Latin by Giusti & Oniga (2007).
✓ To start reflecting on DP/internal head-movement or remnant movement (Cinque 1994 vs Cinque 2005) on the basis of Latin data.

1.2. Corpus
✓ We will exclusively rely on attested data collected from a selection of authors active from the end of the 3rd century BC to the beginning of the 4th century AD.
✓ All examples proposed here have been chosen after full reading of the whole text, and careful consideration of the discourse/pragmatic context.
✓ The corpus is made of both simple nominal expressions (SNE) and complex nominal expressions (CNE). We used the corpus in a “flexible” way (Devine & Stephens 2006), as we arranged it in three subcorpora, according to different periods, as well as the different complexity of the items. The corpora of CNEs are based on a larger selection of texts extracted by searching the B(ibliotheca) T(eubneriana) L(atina).
   - The first is made of 560 SNEs containing a noun and a demonstrative.
   - The second is made of 262 CNEs including a demonstrative, a noun, and at least one more element modifying the noun.
   - The third is made of 100 CNEs including at least two adjectives and the noun.

2. Latin and the NP/DP parameter

Bošković (2005-2010) formulates important generalizations about languages with and without articles, all derived by the assumption that articleless languages have no DP. We compare Latin to Slavic and Romance, showing that Latin not only displays many properties of both, but is more liberal than each of them in NE/internal orders and in Left Branch Extraction (cf. Corver 1990).

2.1 Slavic-like properties of Latin

(i) Left-branch extraction (LBE) is possible in articleless languages like Serbo-Croatian (1a) and impossible in article languages like Bulgarian (1b) (Bošković 2005, 2008). This is also true in Latin vs Romanian (2). The same occurs with wh-modifiers (3), which extract in Latin but not in Italian:

   (1) a. nova/ta je prodao [nova/ta kola]
       new/that is [he] sold         car
   b. *novata/tazi prodade Petko [novata/tazi kola]
       new-the/this sold     Petko      car
(2) a. maximam habet [maximam opinionem virtutis]  
greatest.acc.sg has opinion.acc.sg virtue.gen.sg.  
“He has the greatest consideration of the Virtue” (Caes. Gall. 7,59,5)  
b. *maxima are [maxima opinie (a) virtutii]  
greatest-the [he]-has opinion (of) virtue-the.gen  
(Romanian)

(3) a. quales legimus [quales panegyricos]?  
what.Acc.PL read.pres/1PL. panegyric.Acc.PL  
“What kind of panegyrics do we read?” (Quint. Inst. 2,10,11)  
b. *quali leggiamo panegirici?  
(Italian)

Bošković (2008) derives the blocking effect of DP with three assumptions:

(4) a. DP is a phase, while NP is not.  
b. For an element to be extracted out of a phase, it needs to move through the left edge.  
(Phase Impenetrability Condition (PIC))  
c. Movement out of SpecDP is excluded by anti-locality.

In DP-languages, PIC forces movement out of DP to take the intermediate step in SpecDP, which is however banned (5a) by anti-locality. This is not the case in NP-languages (5b):

(5a) ….[DP  
   [D' D [NP [XP] N]]]  
   b. ….[NP [XP] N]  
(ii) Determiners behave like adjectives: Dem and Poss display the same morphology as adjectives, they can co-occur, as in (6), and that Poss can be predicates, as in (7). Notice, however, that all of these properties are also found in Italian:

(6) a. illam meam cladem  
that.ACC.SG. my.ACC.SG misfortune.ACC.SG.  
“that my misfortune” (Cic. Sext. 31)  
b. quella mia sventura  
(Italian)

(7) a. suam esse hereditatem defendit  
his.ACC.SG. to-be the inheritance.ACC.SG. claim.3SG.pres.  
“[he] claims that the inheritance belongs to him” (Cic. Inv. 2,23)  
b. Sostiene che l'eredità è sua.

(iii) Freedom of NE-internal word order. For Bošković, this is due to adjunction of APs to NP:

(8) a. Jovanova bivša kuća vs. bivša Jovanova kuća  
“Jovan's former house”  
b. Jovanova skupa slika vs. skupa Jovanova slika  
“John’s expensive picture”  
c. Marijina omiljena kola vs. omiljena Marijina kola  
“Mary’s favorite car”
a. novos hostes Labicanos
   new.ACC.M.PL. enemy.ACC.M.PL. Labicanian.ACC.M.PL.
   “new enemies from Lobicum” (Liv. 4,45,3)

b. Picentium novorum sociorum
   Picenian.GEN.M.PL. new.GEN.M.PL. ally.GEN.M.PL.
   “of the new allies from Picenum” (Liv. 10,11,7)

c. nova ambigua ancipitia
   new.ACC.NT.PL. uncertain.ACC.NT.PL. chance.ACC.NT.PL.
   “new uncertain chances” (Tac. Hist. 2,86,3)

d. dolia olearia nova
   jar.ACC.NT.PL. oil.ACC.NT.PL. new.ACC.NT.PL.
   “new oil jars” (Cato agr. 69,1)

2.2 Differences with Slavic

(i) Demonstratives must be the leftmost elements in Slavic NEs (Progovac 1998; Pereltsvaig 2007). Latin does not obey this restriction:

   (10) a. ova skupa kola vs. ?*skupa ova kola
       “This expensive car”

   b. ova Jovanova slika vs. ?*Jovanova ova slika
       “This Jovan’s picture”

(ii) A genitive complement cannot be extracted in Slavic (lack of DP makes the NP-phase opaque for extraction). This does not hold for Latin:

   (12) a. *Ovog studenta sam pronašla [knjigu [ovog studenta]]
       this student.GEN. am found book

   b. Ova/Neka/Jovanova je vidio [ova/neka/jovanova kola]
       this/some/John’s is seen car
       “This/some/John’s car he saw”

(iii) Two argument genitives are excluded in NP languages, if the second structural case is assigned in the upper DP-layer (Willim 2000). Latin can have two argument genitives (Giusti & Oniga 2006, 2007; Devine & Stephens 2006; Gianollo 2007; Ledgeway in press):

   (14) a. *zničení Říma barbarů
       destruction Rome.GEN. barbarians.GEN.
Furthermore, in single genitives we observe that subject genitives tend to precede N even in the absence of an object genitive, while object genitives usually follow it (Devine & Stephens 2006, Giusti & Oniga 2007, and Gianollo 2007).

In this respect, Latin is more similar to Germanic (16a) than to Romance (16b-e). Notice that Romance (16d) is parallel to Polish (14b):

(16) a. Napoleon’s invasion of Russia d. ??l’invasione della R. di Nap. (amb.)
   b. la sua invasione della Russia e. l’invasione della Russia da parte di N.
   “his invasion of Russia” c. ??l’invasione di N. della R. (amb.)
   “the invasion of Russia by Napoleon”

⇒ We conclude that there are strong reasons to suppose that Latin has a DP layer.

3. The syntax of Latin demonstratives

SNEs, consisting of just a DEM and an N, clearly show an overwhelming prenominal position of DEM, with diachronic interesting differences (Iovino 2011):

Table 1 (3\(^{\text{rd}}\) BC-2\(^{\text{nd}}\) AD)

<table>
<thead>
<tr>
<th></th>
<th>Hic 131 (47%)</th>
<th>Ille 125 (46%)</th>
<th>Iste 21 (7%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hic &gt; N</td>
<td>118 (87%)</td>
<td>48 (55%)</td>
<td>39 (45%)</td>
</tr>
<tr>
<td>N &gt; hic</td>
<td>19 (13%)</td>
<td>19 (13%)</td>
<td>39 (66%)</td>
</tr>
<tr>
<td>Ille &gt; N</td>
<td>48 (55%)</td>
<td>19 (13%)</td>
<td>39 (66%)</td>
</tr>
<tr>
<td>N &gt; ille</td>
<td>39 (45%)</td>
<td>39 (66%)</td>
<td>20 (34%)</td>
</tr>
<tr>
<td>Iste &gt; N</td>
<td>39 (45%)</td>
<td>39 (66%)</td>
<td>20 (34%)</td>
</tr>
<tr>
<td>N &gt; Iste</td>
<td>39 (66%)</td>
<td>39 (66%)</td>
<td>20 (34%)</td>
</tr>
<tr>
<td>DEM &gt; N</td>
<td>205 (72,4%)</td>
<td>N &gt; DEM 78 (28,6%)</td>
<td></td>
</tr>
</tbody>
</table>

Table 2 (3\(^{\text{rd}}\) – 4\(^{\text{th}}\) AD)

<table>
<thead>
<tr>
<th></th>
<th>Hic 137 (48%)</th>
<th>Ille 87 (31%)</th>
<th>Iste 59 (21%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hic &gt; N</td>
<td>118 (87%)</td>
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<td>39 (45%)</td>
<td>39 (66%)</td>
<td>20 (34%)</td>
</tr>
<tr>
<td>Iste &gt; N</td>
<td>39 (45%)</td>
<td>39 (66%)</td>
<td>20 (34%)</td>
</tr>
<tr>
<td>N &gt; Iste</td>
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<tr>
<td>DEM &gt; N</td>
<td>205 (72,4%)</td>
<td>N &gt; DEM 78 (28,6%)</td>
<td></td>
</tr>
</tbody>
</table>

(17) a. [DP Dem D [N Dem D [N]]] (80%)
   b. [DP N+D [N Dem D [N]]] (20%)

A corpus of 262 CNEs consisting of three elements shows that DEM can appear in first or second position, never third or last:
Table 3

<table>
<thead>
<tr>
<th></th>
<th>Dem in first position</th>
<th>Dem in second position</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dem Poss N</td>
<td>16</td>
<td>6.0%</td>
<td>Poss Dem N</td>
</tr>
<tr>
<td></td>
<td>8</td>
<td>3%</td>
<td>24</td>
</tr>
<tr>
<td>Dem Num/Q N</td>
<td>46</td>
<td>17.5%</td>
<td>Num Dem N</td>
</tr>
<tr>
<td></td>
<td>6</td>
<td>2%</td>
<td>52</td>
</tr>
<tr>
<td>Dem A N</td>
<td>81</td>
<td>31%</td>
<td>A Dem N</td>
</tr>
<tr>
<td></td>
<td>35</td>
<td>13.5%</td>
<td>116</td>
</tr>
<tr>
<td>Dem Modifier N</td>
<td>143</td>
<td>54.5%</td>
<td>Modifier Dem N</td>
</tr>
<tr>
<td></td>
<td>49</td>
<td>18.5%</td>
<td>192; 73%</td>
</tr>
<tr>
<td>Dem N Poss</td>
<td>12</td>
<td>4.5%</td>
<td></td>
</tr>
<tr>
<td>Dem N Num</td>
<td>3</td>
<td>1.0%</td>
<td></td>
</tr>
<tr>
<td>Dem N A</td>
<td>40</td>
<td>15.5%</td>
<td></td>
</tr>
<tr>
<td>Dem N Modifier</td>
<td>55</td>
<td>21%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>N ille Modifier</td>
<td>156%</td>
<td>15; 6%</td>
</tr>
<tr>
<td>Total</td>
<td>198</td>
<td>75.5%</td>
<td>Total</td>
</tr>
<tr>
<td></td>
<td>64</td>
<td>24.5%</td>
<td>262; 100%</td>
</tr>
</tbody>
</table>

Empirical generalizations:

✔ DEM is in initial position at basically the same rate in CNE (75.5%) as in SNE (which present an average of 80%).

✔ DEM is generally in the highest specifier in the unmarked case.

\[
\text{[DP Dem D [FP AP F [NP N]]]} \]

✔ The second position of DEM is mostly obtained by dislocation of only one element to the LPP position:

\[
\text{[LPP AP [DP Dem D [FP AP F [NP]]]}} \]

✔ The postnominal position of DEM in SNEs is solidly attested in the 20% of the cases and reaches a peak of 45% for ille in the late imperial period (cf. Table 2), while DEM is almost never postnominal in CNEs (only 6%).

✔ Against a right branching analysis of N (A) Dem:

\[
\text{* DP} \]

\[
\text{* Against N(P) movement to LPP:} \]

\[
\text{*[LPP N(P) [DP Dem [FP AP [N(P)]]]]} \]

\[
\text{*N hic/iste A} \]

✔ Against FP movement to LPP:

\[
\text{*[LPP FP [DP Dem [FP AP [N(P)]]]]} \]

\[
\text{*ANDem} \]

\[
\text{*[LPP FP [DP Dem [FP N [FP AP [NP N]]]]]} \]

\[
\text{*NADem} \]

✔ Only ille appears in second position preceded by N (proper name or common noun) and followed by a predicative adjective.
N-ille-Adj is parallel to Romanian N-cel-Adj construction (Cornilsecu 1992, Coene 1999), where ille introduces a Reduced Relative Clause.

\[ \text{DP \ N} [\text{FP \ RRC \ ille \ AP} \ N \ [\text{NP} \ N]] \]

4. Direct and indirect modification in Latin

The adjective closest to the noun more closely restricts the denotation, while an external adjective takes scope over the whole constituent (De Sutter 1986, Devine & Stephens 2006, Spevak 2010). We follow Cinque (2010) and distinguish direct modification adjectives inserted in a low layer and indirect modification adjectives inserted higher and corresponding to reduced relative clauses.

Our corpus consisting of 100 CNEs containing a noun and at least two ADJs we find all seven possible orders, with interesting rates:

<table>
<thead>
<tr>
<th>Linear order</th>
<th>Structural order</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. N A₁ A₂</td>
<td>[[N [A₁ N]] A₂]</td>
<td>N-movement + roll-up</td>
</tr>
<tr>
<td>b. A₂ N A₁</td>
<td>[A₂ [N [A₁ N]]]</td>
<td>only N-movement, no roll-up</td>
</tr>
<tr>
<td>c. A₂ A₁ N</td>
<td>[A₂ [A₁ N]]</td>
<td>no N-movement, no roll-up</td>
</tr>
<tr>
<td>d. N A₂ A₁</td>
<td>[N [A₂ N [A₁ N]]]</td>
<td>iterated N-movement to D</td>
</tr>
<tr>
<td>e. A₁ N A₂</td>
<td>i. [[A₁ N] A₂]</td>
<td>roll-up of [A₁ N], or N-to-D + AP1 to LPP</td>
</tr>
<tr>
<td></td>
<td>ii. [A₁ [N [A₂ N [A₁ N]]]]</td>
<td></td>
</tr>
<tr>
<td>f. A₁ A₂ N</td>
<td>[A₁ [A₂ N]]</td>
<td>no N-movement, no roll-up, only AP1 to LPP</td>
</tr>
<tr>
<td>g. N Ax, Ax</td>
<td>i. [N [[Ax, Ax N]]]</td>
<td>N-movement across coord.APs, or iterated roll-up</td>
</tr>
<tr>
<td></td>
<td>ii. [[NP] A₂] A₂</td>
<td></td>
</tr>
</tbody>
</table>

i. An indirect modification AP precedes a direct modification AP. N can either remain in situ (19a) or move in one (19b) or two steps (19c):

19. a. [parvulis equestribus [proeliis]]
   “little equestrian battles” (Caes. Gall. 5,50,1)
   b. [veteres cives [Romanos cives]]
   “old Roman citizens” (Liv. 8,11,14)
   c. [libro vetere libro [linteo libro]]
   “old linen book” (Liv. 10,38,6)

ii. An indirect modification AP follows the sub-constituent containing N and the direct modification AP in any order. Lack of N-movement matched with roll-up of [FP AN] accounts for (18e.i) exemplified in (21a), where a direct modification adjective precedes N in turn followed by A₂:

20. a. [FP AP_{ind} [FP AP_{dir} [N]]]
   b. [FP AP_{ind} [FP N [FP AP_{dir} [N]]]]
   c. [DP N [FP AP_{ind} [FP N [FP AP_{dir} [N]]]]]
(21) a. [[[populares homines] improbos in republica] seditiosos] (18e.i)
popular people.ACC.M.PL unfaithful ACC.M.PL to the State seditious ACC.M.PL
“popular people, unfaithful and seditious to the State” (Cic. rep. frg 4,11)
b. [[ova anserina] pilleata] (18a)
egg.ACC.PL of goose.ACC.PL with pilleum.ACC.PL.
“goose eggs with pillemum” (Petr. Sat. 65,2)

(22) a. [FP [AP dir NP] [FP AP ind [FP AP dir [NP]]]]

b. [FP [NP AP dir] [FP AP ind [FP NP [FP AP dir [NP]]]]]

iii. The structures in (20) and in (22) cannot explain the data in (23), representing the order in (18f),
with a referential AP (unambiguously of direct modification) at the left of the indirect
modification AP:

(23) a. Exporgi meliust lumbos atque exsurger:
stretch.INF.PRES.PASS. better buttocks.ACC.M.PL and get up.INF.PRES.PASS.
[LPP Plautina] [DP longa [FP Plautina [NP fabula ]]][][]]
Plautinian.NOM.F.SG. long.NOM.F.SG. comedy.NOM.F.SG.
in scaenam uenit. (Plaut. Pseud. 1/2)
on stage.ACC.F.SG. come.3.SG.PRES.IND.
“You’d better stretch your buttocks and get up: a long Plautinian comedy is coming on stage”

b. ita ego vestra latera loris faciam
so I your.ACC.NT.PL. hip.ACC.NT.PL. whipstroke.ABL.PL. make.1.SG.FUT.
ut valide varia sint, ut ne peristromata quidem
that very variegated.NOM.NT.PL. are that not blanket.NOM.NT.PL. even
aque picta sint Campanica , neque [LPP Alexandrina
so decorated are Campanian.NOM.NT.PL. nor Alexandria.NOM.NT.PL.
[DP belvata [tonsilia [Alexandrina [NP tappetia]]]]]]
decorated/with/animals.NOM.NT.PL. trimmed.NOM.NT.PL. carpets.NOM.NT.PL.
“I will make your hips with whip/strokes in such a state that they will be so variegated that not
even the blankets of Campania or the decorated trimmed carpets of Alexandria have such a variety
of colors” (Plaut. Pseud. 145-147).

c. de [LPP Homeric] [DP annuo [FP Homeric [NP partu ]]][][][]
about Homerian.ABL.M.SG. yearlong.ABL.M.SG. childbirth.ABL.M.SG. and
de undecimo mense diximus quae cognoveramus.
about 11th.ABL.M.SG. month.ABL.M.SG. [we] said what [we] knew (Gell. 3,16,22)
“we said what we know about the Homerian yearlong childbirth and of the eleventh month”

Our proposal can also capture the fact that the marked order in (18e), can also be derived by N to D
with additional movement of A₁ to LPP triggered by some emphasis on A₁, with the derivation (18e.ii). In this case A₁ (patris) is contrasted with suam:

(24) si nihil de [LPP patris [DP fortunis [FPind amplissimis [F: fortunis [NP [AP patris] [N: fortunis]]]]]]

if nothing. ACC.SG. of familiar. ABL.PL. richness. ABL.PL. very big. ABL.PL.
in suam rem convertit
in his. ACC.SG. richness. ACC.SG. convert. 3. PL. IND. PERF. ACT. (Cic. S. Rosc. 144)

5. Left-Branch extraction as one kind of hyperbaton
The hypothesis of LPP positions in NEs serving as an escape hatch can account for the most common types of hyperbatas, namely those that extract one full constituent (argument or modifier) of the NE.

→ Premodifier hyperbaton (Devine & Stephens 2006:Ch.6):
(25) a. [NE reliquorum [nutriculas [reliquorum praediorum]]]
remaining. GEN. NT. PL. nurse. ACC. F. PL. farm. GEN. NT. PL.
“the nurses of the remaining farms” (Cic. Phil. 11,12)

b. [NE magna [aliaqu a [magna ac nobilis] virtus]]
big. NOM. F. SG. other. NOM. F. SG. and noble. NOM. F. SG. virtue. NOM. F. SG.
“any big and noble virtue” (Tac. Agric. 1.1)

c. [AP magnas] habebas omnibus dis [NE magnas gratias]
big. ACC. F. PL. to have. 2. SG. IMP. IND. ACT. all. DAT. M. PL. god. DAT. M. PL. grace. ACC. F. PL.
“you had big graces for all gods” (Plaut. Asin. 141)

→ Movement from AP (Devine & Stephens 2006:576), which can strand either the complement (20a) or the specifier (20b) of the AP:
(26) a. [LPP [PP ad nostras utilitates] [DP officia [FPind [AP ante collata PP] [NP officia]]]]
for our. ACC. F. PL. benefit. ACC. F. PL. favour. NOM. NT. PL. previously addressed. NOM. NT. PL.
“the favours previously addressed for our benefit” (Cic. off. 1.45)

b. [LPP molto [DP [Posp vestae [FPind [AP molto mai ores gravi or esque] [NP partes]]]]]
much your. NOM. F. PL. bigger. NOM. F. PL. more-serious. NOM. F. PL.-and role. NOM. F. PL.
“Our roles are no more important or more serious…” (Cic. Font. 21)

Our proposal predicts that LBE involves a single modifier extracted through LPP, therefore predicting that this is the only hyperbaton derived by LBE. Other type of hyperbata can be reduced to Left and Right dislocation.

Conclusions
• Latin NEs clearly have the tripartite structure parallel to clauses. The DP split in two projections is reminiscent of the split CP of much literature. The LPP above DP overcomes PIC and anti-locality allowing for movement and extraction of APs or genitive NEs.
• A semantic or a functional account à la Bošković cannot explain all word orders, while Spevak’s purely pragmatic account would take different rates of occurrences as accidental.
• Our proposal of optional N-movement across direct modification, reaching D when SpecDP is not filled, together with optional roll-up through indirect modification can capture the orders observed, differentiating between unmarked, less marked and more marked orders.
• We uncover properties of Latin that had gone unobserved:
  (i) In CNEs any class of modifiers but not the head N can precede Dem.
  (ii) In SNEs the possibility for N to precede Dem is quite solid even if marked.
  (iii) Only one constituent at a time can precede Dem.
(iv) Dem is never third or last.
(v) There is a correlation between the presence of Dem and the head-final position of N in CNE.
(vi) N moves more freely across any kind of modifier in SNEs than in CNE.
(vii) The NlleAP construction must be sorted out from CNEs, being reduced to a SNE with the unmarked NA order.
(viii) N-movement does not always yield the interpretation of a proper name, but is parallel to what is observed in Romanian where the N inflected for the definite article is in D.

- Our hypothesis can explain why all Romance languages independently developed an article: as Latin already had a DP projection, its daughter languages had very good chances to develop a filler for D (a last resort process) once nominal morphology became less rich.

References


