14

CAS LX 522
Syntax I

θ-roles in DP,
and an introduction to little *n*
(7.3-7.6)

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one-replacement review…

1) This book of poetry on my desk
2) *This book on my desk of poetry.
3) *This book of poetry of riddles.
4) That one on the floor.
5) *That one of riddles on the floor.
6) This book on my desk by the coffee.
7) This book by the coffee on my desk.
8) That one by the pencils.

- What's the pattern? Whence the pattern?

  - Of the PP's, one kind (*of poetry*) seems to have to come first.

  - There cannot be more than one of the *of poetry* type PPs.

  - *One* seems to replace N and any number of PPs— but *must* replace the *of poetry* type PP if it is there.


PP adjuncts

- The fact that we can have any number of PPs and they can come in any order (momentarily ignoring *of poetry* type PPs), suggest that they are adjuncts. Just like with *v*P. So what does *one* stand in for?
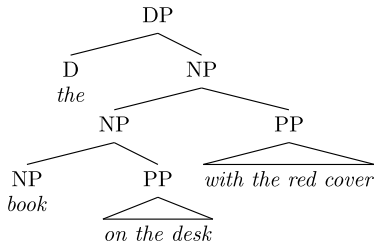
PP adjuncts

- What kind of explanation can we offer for the facts about *of poetry* type PPs that…

  - Must be closer to the noun than the other PPs, and
  - Of which there can be only one, and
  - Get replaced by *one*?
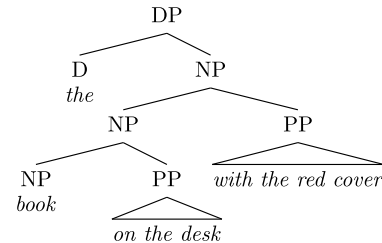
Differentiating poetry from pencils

- It's somewhat tricky to pin down a good diagnostic for which kinds of PP count as *of poetry* type PPs and which count as *by the pencils* type PPs.

- *Of poetry* PPs generally start with *of*.

  1) The book of great importance by the pencils.

  2) The book by the pencils of great importance.

- *Of poetry* PPs generally describe a fairly intrinsic property of the N.

  3) The student of physics in the hall.

  4) The student in the hall of physics.
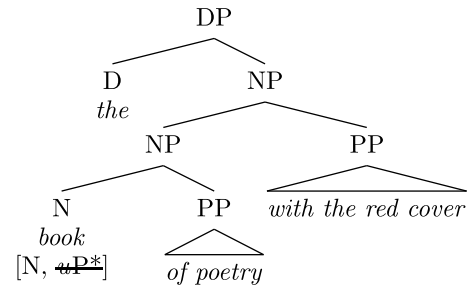

Of poetry PPs aren't obligatory

- NPs don't necessarily have an *of poetry* type PP, but they can.

  1) The book of poetry on the table.

  2) The book on the table.

- We'll analyze this essentially like Adger analyzed *letters to Peter* on p. 109 (though we may revise this slightly shortly). An N has the option of having a [*u*P*] feature, and if it does, the PP that satisfies it must have this "intrinsic property" characteristic (and will generally be an *of*-PP).

UTAH

- Adger doesn't treat this as such (actually, he doesn't treat this at all), but we can understand the restriction to "intrinsic properties" in somewhat the same way we treat the oddity of these:

  1) #The room learned Chinese.

  2) #I sent Chicago letters.

- Here, there's something about being an Agent or a possessor that requires cognitive capacity. There's an intrinsic property of the role assigned.

- If *intrinsic property* can be thought of as a θ-role, N can optionally assign this role.

  - PP sister of N: Property

one

- So *book of poetry with the red cover* would look something like this. *One* can replace any NP.

```
              DP
            /    \
          D       NP
         the     /   \
              NP       PP
             /   \      with the red cover
            N     PP
          book    /\
       [N, uP*]  of poetry
```

The category of pronouns

- We said that bare plurals like *students* in *Students arrived* are really DPs, and have a null determiner.

  [$_{DP}$ ∅ students] arrived.

- How about pronouns, like *we* in *We arrived*?

- Although you can say *The students arrived*, you can't say **The we arrived*.

- You can say things like *We linguists should stick together*. Or *You syntacticians are a crazy lot*. That is, a pronoun followed by a noun.

  > This only seems to work with *we* and *you*, though.

The category of pronouns

- *We linguists* looks rather like *The linguists*.

- *We* looks rather like a D.

- Also noteworthy:

  1) The media always disparages us linguists.

- Pronouns reflect case distinctions.

- If pronouns are just Ds, then case must be a property of D.

- **Case is actually a property of D (not of N).**

Possessors

- Consider the genitive (possessive) *'s* in English:

  1) John's hat
  2) The student's sandwich
  3) The man from Australia's book
  4) The man on the hill by the tree's binoculars

- The possessor can be a full DP (inside another DP).

- The *'s* attaches to the whole possessor *phrase*—it's the man's book and binoculars, not Australia's or the tree's, after all.

- This is not a noun suffix. It seems more like a *little word* that signals possession, standing between the possessor and the possessee. (it's a *clitic*).
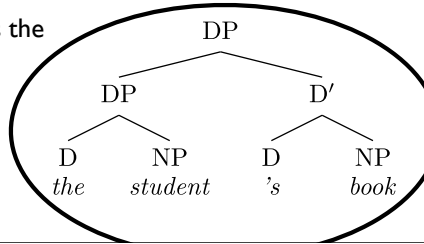
Possessors

- It seems to be impossible to have both a *'s* and a determiner.

  - *The building's the roof

  - The roof of the building

  - *The hurricane's the eye

- Determiners like *the* and the possession marker *'s* seem to be in complementary distribution—if one appears, the other cannot.

- Compare:

  1) The big fluffy pink rabbit   3) *The my rabbit

 2) *The that rabbit   4) *Every my rabbit

Possessors?

- This suggests a structure like this for possession phrases:

- The possessor DP is in the specifier of DP. And of course, this can be as complex a DP as we like, e.g., *the very hungry student of linguistics by the tree with the purple flowers over there... ...'s book*

- The possessed NP is the complement of D.

```
            DP
          /    \
        DP      D′
       /  \    /  \
      D   NP  D   NP
     the student 's  book
```

Possessors and the null D

- But what then to do about DPs like *his book*? Or *their book*?

- Here the possessor DP is the genitive case pronoun, and there's no *'s*.

  1) *Their's book
  2) *Them's book
  3) *They's book

- Accordingly, we will instead suppose that there is a **null D**, $\emptyset_{\textbf{gen}}$, that checks genitive case. The genitive case form of a non-pronominal DP *is* audible in English, as *DP's*.

```
            DP
          /    \
        DP      D′
       /  \    /  \
      D   NP  D      NP
     the student ∅gen book
```
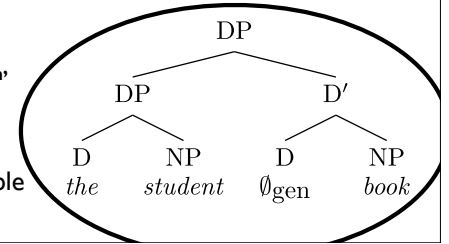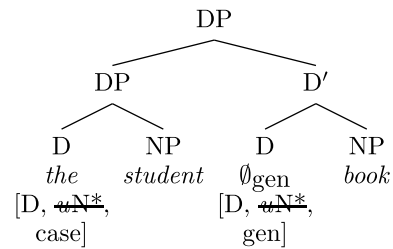
The king's every whim

1) A whim

2) The king's whim

3) The king's every whim

- To the extent that *every* is a D, this indicates two things:

  - The king is to the left of the D; really, the specifier of DP is the only place it could be.

  - The genitive case *'s* isn't *always* incompatible with an overt D (hence, better to think of *'s* not as a D but rather as a case marker on the possessor DP). We take this (marked) use of *every* to be an exceptional overt determiner that can still check [gen].
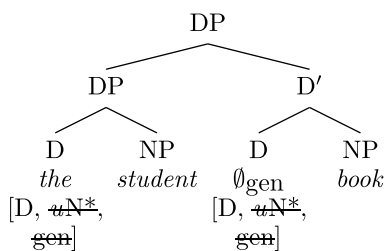
Checking genitive case

- The checking of genitive case in the DP works exactly like the checking on nominative case in the TP does.

```
                DP
              /    \
            DP       D′
           /  \     /   \
          D   NP   D     NP
         the student ∅gen book
        [D, u̶N̶*̶,      [D, u̶N̶*̶,
         case]         gen]
```

Checking genitive case

- The checking of genitive case in the DP works exactly like the checking on nominative case in the TP does.

```
            DP
          /    \
        DP       D′
       /  \     /   \
      D   NP   D     NP
     the student ∅gen book
    [D, u̶N̶*̶,      [D, u̶N̶*̶,
     g̶e̶n̶]          g̶e̶n̶]
```

> I don't mean to preclude the possibility that the possessor actually moves from somewhere into SpecDP—we'll explore that next week, but that need not happen for this to work.

A couple of null Ds

- So we have at this point a couple of different null determiners. They are as different as *the* is from *a* or from *that*, they just happen to be pronounced the same way (like this:" ").

- One is $\emptyset_{\textbf{gen}}$, which has a [gen] feature and in whose specifier we find possessors.

- Another is $\emptyset_{\textbf{indef}}$, which is a nonsingular indefinite article, in whose complement we find plurals and mass nouns.
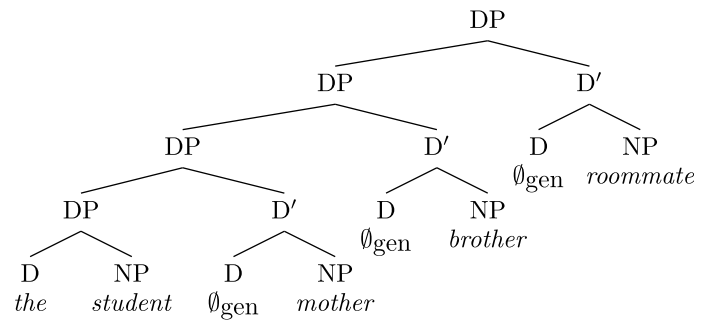
  [$\emptyset_{\textbf{indef}}$ Milk] spilled. [$\emptyset_{\textbf{indef}}$ People] cried.

- Mass vs. count: Some nouns indicate countable things (*chairs*) others indicate stuff (*milk*). Singular/plural distinctions don't apply with mass nouns.

Recursion

- Another noteworthy aspect of the possessor phrase is its *recursive* property.

- The possessor is a DP in the specifier of DP. That means that the DP possessor could have a possessor too…

  1) The student's father's book

  2) The student's mother's brother's roommate

Recursion

DP
- DP
  - DP
    - DP
      - D *the*
      - NP *student*
    - D′
      - D $\emptyset_{gen}$
      - NP *mother*
  - D′
    - D $\emptyset_{gen}$
    - NP *brother*
- D′
  - D $\emptyset_{gen}$
  - NP *roommate*

Proper names

- As for proper names like *Pat*, we will assume that they have a structure something like *students*.

  1) The Pat we respect came to the party.

  2) O Giorgos ephuge
     the George left
     'George left.'

- $\emptyset_{proper}$ (names are not indefinite; this is probably mostly the same as *the*, but silent).

- *Implementation:*
  $\emptyset_{proper}$ has a [uproper] feature, *Pat* has a [proper] feature.

DP
- D $\emptyset_{proper}$
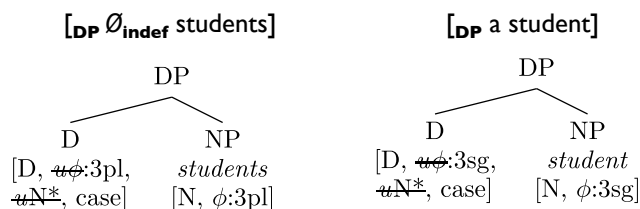- NP *Pat*

DP
- D $\emptyset_{indef}$
- NP *students*
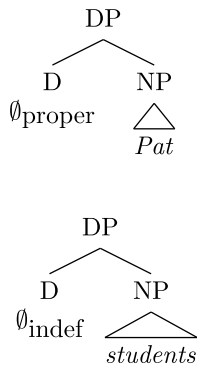
Number agreement on D

- What is wrong with *[$_{DP}$ *A students*] and *[$_{DP}$ *student*]? It's a lack of agreement in number. It's like *Students eats lunch*.

- We can encode this in the same way: The indefinite determiner has a [$u\phi$:] feature, and the N has ϕ-features as always (including a num feature).

- The [$u\phi$:] feature is valued and checked by the ϕ-features of the N.

Number agreement

- This means *a* and $\emptyset_{indef}$ are in fact pronunciations of the same D (Like *me* and *I* are).

  - *A(n)* is the pronunciation when it has a [$u\phi$:sg] feature

  - $\emptyset$ is the pronunciation otherwise

[$_{DP}$ $\emptyset_{indef}$ students]

DP
- D [D, $u\phi$:3pl, $uN*$, case]
- NP *students* [N, ϕ:3pl]

[$_{DP}$ a student]

DP
- D [D, $u\phi$:3sg, $uN*$, case]
- NP *student* [N, ϕ:3sg]

Deverbal nouns

- The structure inside the DP can be as complicated as inside a clause, as it turns out.

  1) Pat broke the vase.

  2) Pat's breaking of the vase startled me.

  3) The bees startled me.

- It seems to be possible to convert the whole clause *Pat broke the vase* into a "noun" (a DP).

Deverbal nouns

- What's more, the relationship between *break*, *Pat*, and *the vase* seems to be the same inside the DP as it is in the clause.

  1) Pat broke the vase.
  2) Pat's breaking of the vase made me angry.
  - *Pat* is an Agent, *the vase* is a Theme.
  3) Pat danced.
  4) Pat's dancing startled me.

- Just as the verb *break* assigns θ-roles, it seems as if the nominalized *breaking* assigns the same θ-roles. The DP is in a way like a little clause.

TPs and DPs

- One difference between clausal DPs and TPs is in the case realized by the arguments.

1) I called him.
  - Agent is nom (from T), Theme is acc (from *v*)

2) My calling of him was unplanned.
  - Agent is gen, Theme looks like a PP introduced by *of*.

- So, the case assigners within a DP are different from the case assigners within a clause.


Two kinds of N

- Not all N's assign θ-roles. Some do, some don't. Generally, the nouns related to a verb that assigns θ-roles will assign θ-roles. But something like *lunch* doesn't.

  1) Pat's lunch was enormous.

  2) Pat's eating of lunch was shockingly rapid.

- So, we can either find a DP with a θ-role with genitive case, or we can find a possessor with genitive case, in SpecDP.

Ditransitive N

- Consider the ditransitive verb *give* and the related noun *gift*. Just as *give* is responsible for three θ-roles (Agent, Theme, Goal), so can *gift* be:

  1) Pat gave an apple to Chris.

  2) Pat's gift of an apple to Chris was unexpected.

- The exact same problem arises with ditransitive nouns as arose with ditransitive verbs.

- Binary branching allows for just two arguments in NP. We need an additional projection for the third. Let's try doing this just like we did for verbs…

Little n
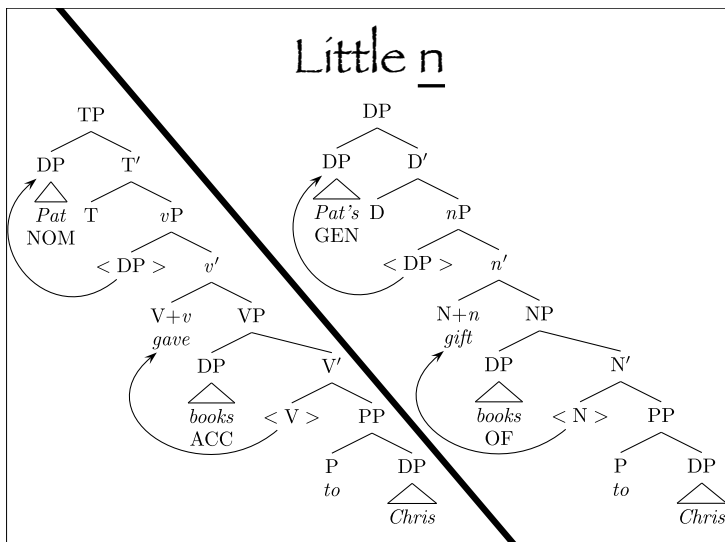
DP is like TP

- If we suppose that DP works like TP, we can extend our theoretical machinery in an exactly analogous way.

- **Hierarchy of Projections**
  D > *n* > N

- **UTAH**
  DP daughter of *n*P: Agent
  DP daughter of NP: Theme
  PP daughter of N′: Goal

Case in the DP

- In the DP, the "subject" appears with genitive case.
  - Cf. The subject in TP, which has nominative case, due to a [nom] feature on T.
- So, we say D can have a [gen*] feature.
  - This checks the genitive case on the subject of the DP, and forces it to move into SpecDP.
- In the DP, the "object" appears with the preposition *of*.
  - Cf. The object in TP, which has accusative case, due to an [acc] feature on *v*.
- So, we say that *n* has an [of] feature.

The _of_ case

- What's the deal with this "*of* case" that objects in DPs get? Isn't *of* a preposition? Shouldn't *of cheese* in *The gift of cheese to the senator was appreciated* be a PP?
- This *of* is completely meaningless, it acts like a case marker. So, we're going to analyze it as such. *Of cheese* is a DP with the *of* case marking. Just like *Pat's* is a DP with the genitive (*'s*) case marking.
- Treating *of* as case allows a complete parallel between TP and DP; *v* has an [acc] feature, *n* has an [of] feature.

Passive nouns

- Last week, we looked at the passive construction:

  1) The sandwich was eaten

- Here, the Theme *the sandwich* becomes the subject because the strong feature of T forces it to move to SpecTP. The *v* does not project an Agent.
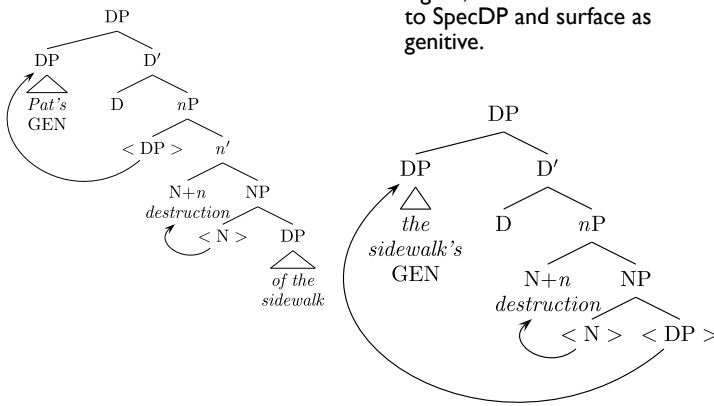
Passive
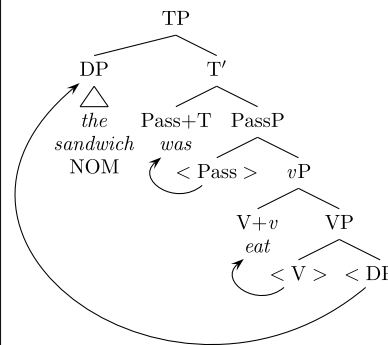
- In the passive, *v* does not introduce an Agent, and does not have an [acc] feature.
- T still has a [nom] feature, so it checks the [case] feature on *the sandwich*.
- T has a [uD*] feature, so *the sandwich* moves to SpecTP to check it.
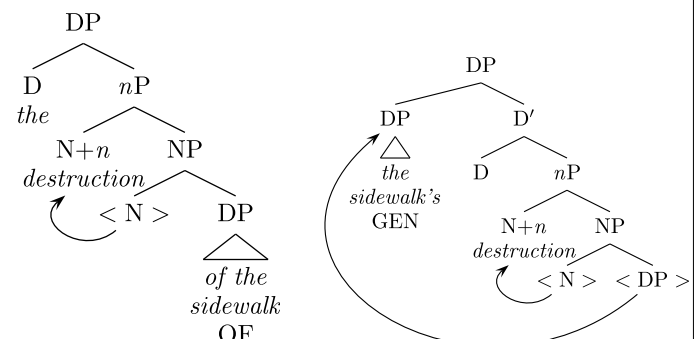
Passive nouns

Very similar to the passive, if an *n* doesn't introduce an Agent, the Theme can move to SpecDP and surface as genitive.

Passive nouns

- If the DP has a head D like *the* that does not check genitive case, then there can be no Agent (nothing could check its case), and the Theme stays unmoved (its *of*-case checked by *n*).

Case and θ-roles

- We now predict the observation Adger makes: Either an Agent or a Theme can show up in the genitive, but only a Theme can show up with *of*-case.

  1) Adger's analysis of the DP is simple.
  2) The DP's analysis is simple.
  3) *The analysis of Adger is simple.

- This is essentially the same as the generalization that, in a clause, either an Agent or a Theme can show up with nominative case, but only a Theme can show up with accusative case.

  1) I called her.   3) *Her tripped.
  2) She tripped.   4) *Tripped her.

Back to possession

- Prior to today, the genitive case was associated with the possessor. So far today we've been looking at deverbal nouns, where genitive case goes to the subject.

- Our new improved UTAH says, among other things:

  - DP daughter of NP: Theme

  - DP daughter of *n*P: Agent

- Possessors are neither of these, so possessors need to be initially Merged into a distinct place in the structure.

Possessors
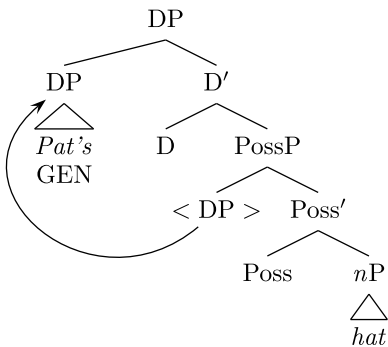
- Adger proposes that Possessors are introduced by a new head, Poss.

- HoP:
  D > (Poss) > *n* > N

Hungarian possessors

1) Az en kalapom
   the I   hat
   'my hat'

2) A Mari kalapja
   the Mary hat
   'Mary's hat'

3) A te   kalapod
   the you hat
   'your hat'

4) Marinak a kalapja
   Mary   the hat
   'Mary's hat'

- Assuming that the DP in Hungarian has the basic structure we've been discussing, what is the structure of this kind of possessive construction?

- How about that (person?) agreement on 'hat'?

Adjectives

- Adjectives are to nouns as adverbs are to verbs. So what would the structure be for *Pat's complete destruction of the sidewalk*? Or *the silly idea*? Or *the pencil on the desk*?

- In *Pat completely destroyed the sidewalk*, we adjoin *completely* to *v*P. The subject moves to SpecTP.

- In the same way, we adjoin *complete* to *n*P, and *Pat* moves to SpecDP.

Adjuncts
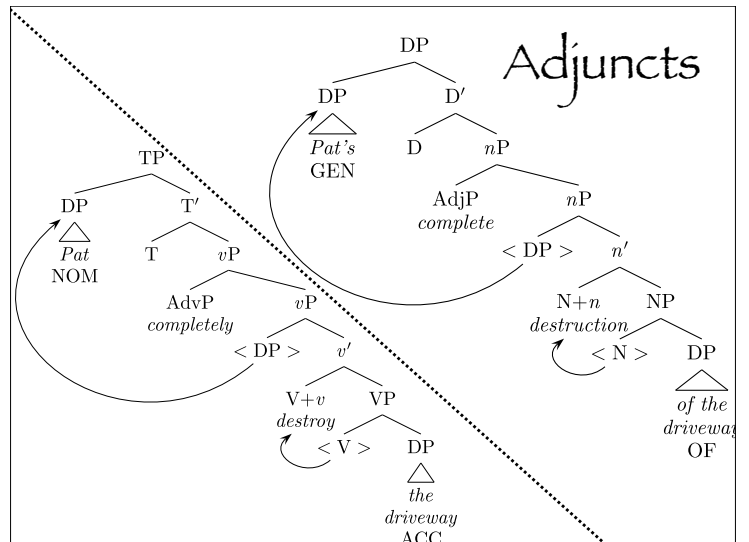
The Italian DP

- In Italian, in many cases, there is simply an option (stylistically governed) as to whether you say *The Gianni* or just *Gianni*:

  1) Gianni mi ha telefonato.
     Gianni me has telephoned
     'Gianni called me up.'

  2) Il Gianni mi ha telefonato.
     the Gianni me has telephoned
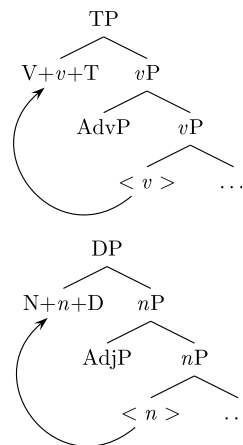   'Gianni called me up.'

The Italian DP

However, there is a difference with respect to the order of adjectives and the noun depending on which one you use.

1) L' antica Roma
   the ancient Rome
   'Ancient Rome'

2) *Antica Roma
   ancient Rome

3) Roma antica
   Rome ancient

4) E'venuto il vecchio Cameresi.
   came the older Cameresi

5) *E'venuto vecchio Cameresi
   came older Cameresi

6) E'venuto Camersi vecchio.
   came Cameresi older

Generalization: If there's a determiner, the noun follows the adjective. If there isn't the noun precedes the adjective.

The Italian DP

- We can apply the same analysis to the order nouns and adjectives as we did to the order of adverbs and verbs.

  - Recall that in French, verbs precede adverbs, but in English, verbs follow adverbs. We conclude that in French, *v* moves to T.

- In Italian, when the noun precedes the adjective it has moved over it, to D. The generalization is that this happens except if D is already filled.

  - L' antica Roma
    the ancient Rome

  - Roma antica   *Antica Roma
    Rome ancient   ancient Rome

```
        TP
       /  \
  V+v+T    vP
          /  \
      AdvP    vP
             /  \
         < v >   …

        DP
       /  \
  N+n+D    nP
          /  \
      AdjP    nP
             /  \
         < n >   …
```

Parameters

- Languages differ on whether *n* moves to D, yielding some languages where nouns precede adjectives, and some languages where nouns follow adjectives.

  - Likewise, languages differ on whether *v* moves to T, yielding some languages (e.g., French) where verbs precede adverbs, and some languages (e.g., English) where verbs follow adverbs.

- What governs whether *n* moves to D is the strength of an uninterpretable feature checked on D or *n* by the other. One such feature is [*unum*:].

  - Italian: [*unum*:*] is strong on null determiners.

  - English: [*unum*:] is weak, even on null determiners.

    - [$\varnothing_{\textbf{indef}}$ Happy students] poured forth from the classroom.

More Italian, same point

- [$_{\textbf{DP}}$ Il mio Gianni] ha finalmente telefonato.
  the my G.   has finally   called
  'My Gianni has finally called.'

- *[$_{\textbf{DP}}$ Mio Gianni] ha finalmente telefonato.

- [$_{\textbf{DP}}$ Gianni mio] ha finalmente telefonato.

Some Hebrew

- harisat   ha-oyev   'et   ha-'ir
  destruction the-enemy OM the-city
  'The enemy's destruction of the city'

- tipul   ha-Siltonot   ba-ba'aya
  treatment the-authorities in-the-problem
  'The authorities' treatment of the problem'

- Construct state. What seems to be happening here? Again, parametric variation.

  - [gen] feature of D is weak in Hebrew, strong (when there) in English. But [*unum*:] feature is strong in Hebrew.

  - Rather like VSO languages, where *v* moves to T (like in French, unlike in English), but the subject doesn't move to SpecTP (the [*u*D] feature of T is weak).