

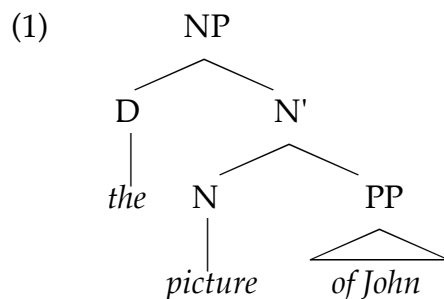
November 15, 2005

## DP: THE NOMINAL LAYER

### FROM NP TO DP

One of the tenets of X'-theory is that phrasal categories must be **endocentric**, i.e. they must have a head. **Exocentric** projections, those that lack a head, are not permitted. Let's consider now the structure of what is classically referred to as NPs.

The classical structure of an NP like *the picture of John*:



**Question:** Do you notice anything special about the D element in this structure?

### *English POSS-ing Gerundives (Abney 1987)*

Strings such as *John's building a spaceship* seem to have the external distribution of NPs but the internal structure of VPs:

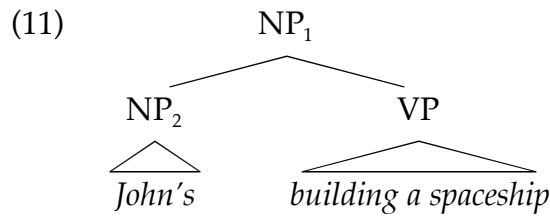
#### ❶ *Nominal distribution of POSS-ing Gerundives: subject, object of V, object of P*

- (2) [ John's building a spaceship ] upset the neighbors.
- (3) The neighbors didn't like [ John's building a spaceship ].
- (4) They were all talking about [ John's building a spaceship ].

#### ❷ *VP properties of POSS-ing Gerundives*

- |  |                             |
|--|-----------------------------|
| (5) John's destroying the spaceship            | (✓ nominal objects)         |
| (6) John's destruction the spaceship           | (*nominal objects)          |
| (7) John's appearing to be dead                | (✓ infinitival complements) |
| (8) * John's appearance to be dead             | (*infinitival complements)  |
| (9) John's deliberately building a spaceship   | (adverb modification)       |
| (10) John's deliberate building of a spaceship | (adjective modification)    |

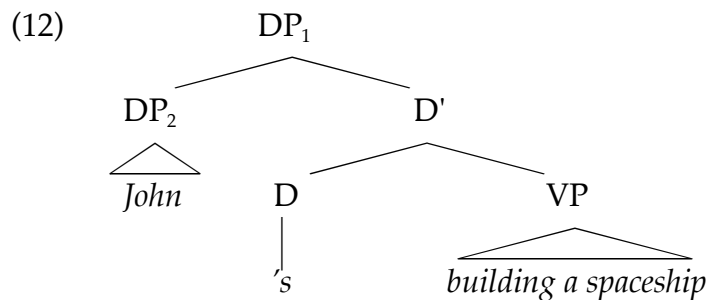
**Conclusion:** POSS-*ing* gerundives are nominal elements which contain a VP.



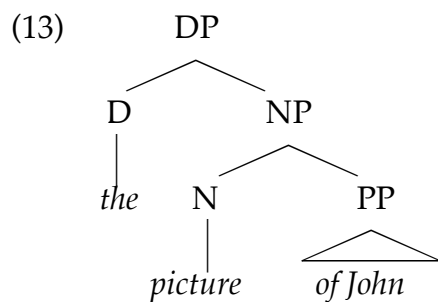
Can you see the **problem** with this structure?

**Abney's solution: The DP-hypothesis**

Nominals are projections of a D head that in turn selects an NP complement. These projections are called **DPs**. POSS-*ing* gerundives would have the following internal structure under the **DP-hypothesis**:



Strings such as *the picture of John*, which have been traditionally treated as NPs, can instead be **analyzed as DPs**:



**Head directionality within DPs in SVO and SOV languages**

English is D-initial, as expected. Japanese, however, doesn't have lexical Ds. But Lakhota, another head-final language, shows **D-final structures**:

- (14) John wowapi k'uhe oyuke ki ohlate iyeye.  
 John letter that bed the under found  
 'John found that letter under the bed.'

## MORE ON THE DP-HYPOTHESIS

Some further issues related to **DP-internal** stuff (data from Bernstein 2001).

❶ **Adjectival placement** with respect to N (variation within Romance):

- (15) a. on neûr tchapê (16) a. lès cûts pans Walloon  
 a black hat the baked bread  
 b. un chapeau noir b. les pains (bien) cuits French  
 a hat black the bread (well) baked  
 'a black hat' 'the (well) baked bread'
- (17) a. one bèle bleûve cote Walloon  
 a nice blue dress  
 b. une belle robe bleue French  
 a nice dress blue  
 'a nice blue dress'
- (18) a. una dí trista (19) a. tempus malu est faendi Sardinian  
 a day sad weather bad is making  
 b. una triste giornata b. sta facendo mal tempo Italian  
 a sad day is making bad weather  
 'a sad day' 'The weather is bad.'

❷ **Possessive constructions** and DP-internal head movement (in Hebrew):

- (20) parat ikar Hebrew  
 cow farmer  
 'a farmer's cow'
- 
- ```

graph TD
  DP --> D
  DP --> NP
  NP --> subj[ikar]
  NP --> N_prime[N']
  N_prime --> N[parat]
  N_prime --> obj
  N --> D
  
```

- (21) ha-axila shel Dan et ha-tapuax Hebrew  
 the-eating of Dan of the-apple  
 'Dan's eating of the apple'
- 
- ```

graph TD
  DP --> D[ha]
  DP --> NumP
  NumP --> Num
  NumP --> NP
  NP --> subj[shel Dan]
  NP --> N_prime[N']
  N_prime --> N[axila]
  N_prime --> obj[et ha-tapuax]
  N --> D
  
```

## CASE STUDY: GERMANIC COMPARATIVELY

West Germanic languages (English, German, Dutch) have **free determiners**, while the North Germanic languages (all Scandinavian languages) have **definite suffixes**.

Free determiners are illustrated with **German** (same holds for the other languages).

- (22) a. Das Pferd wird an den Baum gebunden. *German*  
           the horse will.be to the tree tied  
       b. Ein Pferd wird an den Baum gebunden.  
           a horse will.be to the tree tied

The **Mainland Scandinavian** languages (**Norwegian, Swedish, Danish**) have suffixal definite determiners, but free indefinite determiners, shown for Norwegian:

- (23) a. Hesten blir bundet til treet. *Norwegian*  
           the.horse is tied in the.tree  
       b. En hest blir bundet til et tre.  
           a horse is tied to a tree

**Icelandic (Insular Scandinavian)** doesn't have (free) indefinite determiners either:

- (24) a. Hesturinn verður bundinn á tréið. *Icelandic*  
           the.horse is tied to the.tree  
       b. Hestur verður bundinn á tré.  
           horse is tied to tree

The distinction is cross-cut by **case distinctions**: German and Icelandic have case.

- (25)           *Case*   *Icelandic*           *German*  
       a. NOM hundur-inn    der Hund  
       b. ACC hund-inn       den Hund  
       c. DAT hundi-num     dem Hund  
       d. GEN hunds-ins     des Hunds

Dutch, Danish, Norwegian, and Swedish don't have **morphological case marking**, but they make **gender distinctions**; English does **neither**:

- (26) a. Ku-a klatret på tak-et til låve-n. *Norwegian*  
           cow-the.F climbed on roof-the.N to barn-the.M  
       b. De sprinkhaan zit onder het veulen. *Dutch*  
           the.F grasshopper sits under the foal.N

**Number** is closer to the **stem** than **definiteness**:

- |      |    |        |            |     |                  |
|------|----|--------|------------|-----|------------------|
| (27) | a. | hestar | hestar-nir | NOM | <i>Icelandic</i> |
|      | b. | hesta  | hesta-na   | ACC |                  |
|      | c. | hestum | hestu-num  | DAT |                  |
|      | d. | hesta  | hesta-nna  | GEN |                  |
| (28) | a. | hästar | hästar-na  |     | <i>Swedish</i>   |
|      | b. | hester | heste-ne   |     | <i>Norwegian</i> |

**Definite suffixes** are also known from **Balkan languages**, e.g. Bulgarian:

- |      |    |          |              |                  |
|------|----|----------|--------------|------------------|
| (29) | a. | zvuk     | 'sound'      | <i>Bulgarian</i> |
|      | b. | zvukci   | 'sounds'     |                  |
|      | c. | zvukcite | 'the sounds' |                  |

#### FREE DEFINITE DETERMINERS IN SCANDINAVIAN

Mainland Scandinavian requires **free determiners with adjectives**:

- |      |    |                        |                              |                  |
|------|----|------------------------|------------------------------|------------------|
| (30) | a. | hesten                 | a'. * svarte hesten          | <i>Norwegian</i> |
|      | b. | hästen                 | b'. * svarta hästen          | <i>Swedish</i>   |
|      | c. | hesten                 | c'. * sorte hesten           | <i>Danish</i>    |
|      | d. | hesturinn<br>horse.DEF | d'. svart<br>black horse.DEF | <i>Icelandic</i> |

Swedish and Norwegian require **double definiteness**; Danish does not allow it:

- |      |    |                                   |  |                  |
|------|----|-----------------------------------|--|------------------|
| (31) | a. | *den svarte hest                  | a'. den svarte hesten                        | <i>Norwegian</i> |
|      | b. | *den svarta häst                  | b'. den svarta hästen                        | <i>Swedish</i>   |
|      | c. | den sorte hest<br>the black horse | c'. *den sorte hesten<br>the black horse.DEF | <i>Danish</i>    |

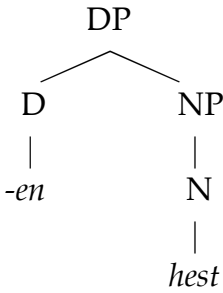
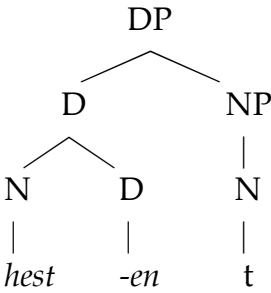
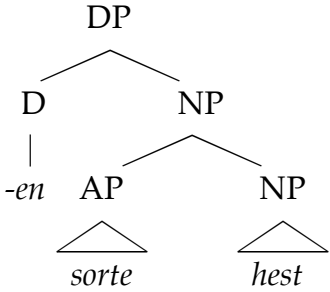
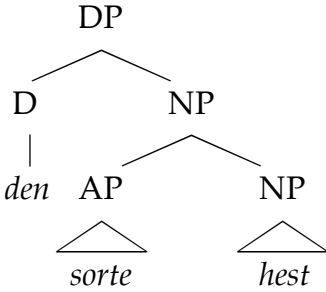
Double definiteness is not possible in the **absence of an adjective**:

- |      |    |                          |                                  |                  |
|------|----|--------------------------|----------------------------------|------------------|
| (32) | a. | *den hest                | a'.(*)den hesten                 | <i>Norwegian</i> |
|      | b. | (*)den häst              | b'.(*)den hästen                 | <i>Swedish</i>   |
|      | c. | (*)den hest<br>the horse | c'. *den hesten<br>the horse.DEF | <i>Danish</i>    |

But the same word is used as a **demonstrative**:

- (33) a. \*den hest                      a'. den hesten                      Norwegian  
 b. den häst                      b'.(\*)den hästen                      Swedish  
 c. den hest                      c'. \* den hesten                      Danish  
 d. sá hestur                      d'. \* sá hesturinn                      Icelandic  
     that horse                      that horse.DEF

Head-movement:  $N^0$  to  $D^0$ ?

- (34) a.  b.  Danish
- c.  d. 

(35) *The head movement account has some appeal*

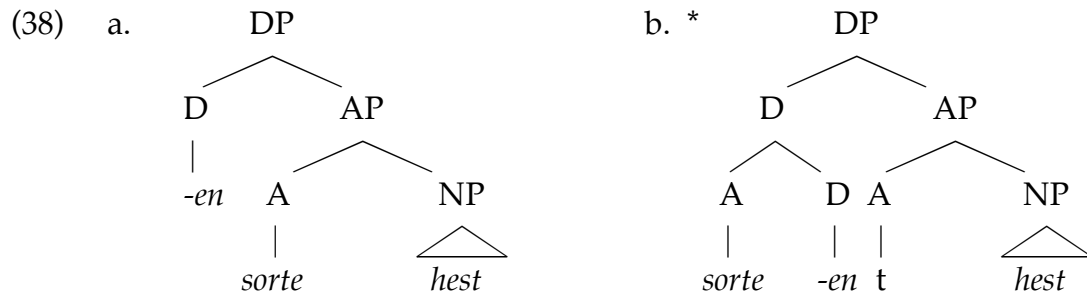
- i. the definite suffixes originated historically as separate articles;
- ii. the complementary distribution in Danish is captured;
- iii. the order of possessives in Norwegian is captured.

Norwegian possessives **follow definite  $N^0$** , but **precede indefinite  $N^0$** :

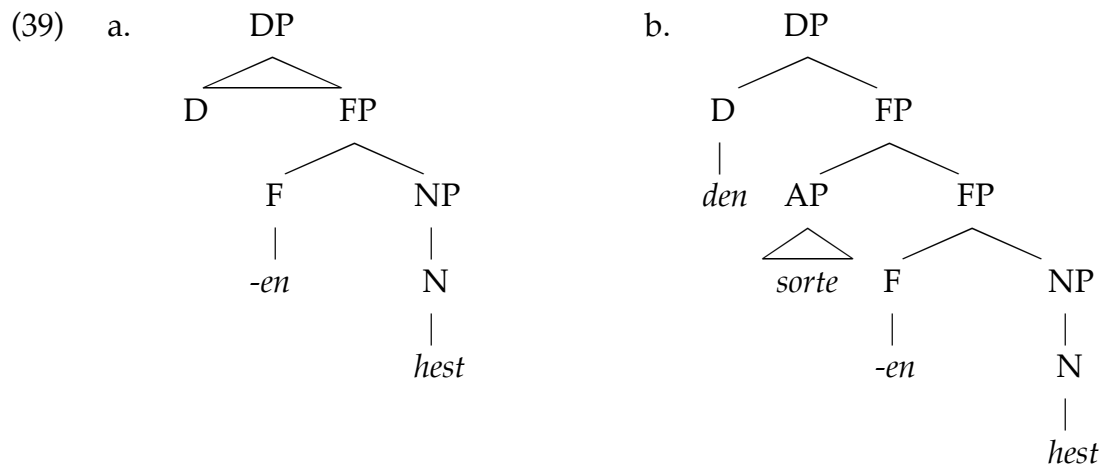
- (36) hesten    min    min hest                      Norwegian  
       horse.DEF    my    my horse

(37) *Problems for the movement account*

- i. double definiteness in Norwegian and Swedish;
- ii. if adjectives are not heads, they should not block head movement;
- iii. if adjectives are heads, they should be able to undergo head movement.



An alternative places **definiteness lower than D<sup>0</sup>**:



(40) *This analysis has some advantages:*

- i. it can generate double definiteness;
- ii. it avoids problems with A<sup>0</sup> mentioned above;
- iii. it allows an account of the alternate order for possessors in Norwegian.

(41) *But it also has some shortcomings:*

- i. it doesn't straightforwardly predict complementary distribution in Danish;
- ii. it gives no explanation as to why D<sup>0</sup> must be filled when not adjacent to F<sup>0</sup>.

## CONCLUSION

These two classes could only provide a brief glimpse into **syntactic issues in the nominal layer** — just as the entire course could only provide a brief glimpse into **issues of comparative syntax** (which is to be “completed” by class presentations!).

I will not attempt an overall conclusion, but hope that some of the discussions we've had were useful and touched the more inquisitive nature of your linguistic brains. In which case I'm very much looking forward to your presentations and final papers... And since I won't offer a spring elective: **Independent Study is always an option!**

## REFERENCES [\* = from previous handout]

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**Disclaimer:** Today I generously stole from handouts originally prepared by Usama Soltan (University of Maryland, College Park: Comparative Syntax course) and Peter Svenonius (University of Tromsø / EGG Summer School, Niš: Microparametric Variation course).