Lecture 20: Determiner Phrase.

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LIN 311: Syntax

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Outline

1 Determiner phrases
   Reminder about NPs and the Plan of Action
   Types of Ds and Their Properties
   DP-Projection
   Pronouns
   Possessors
   Argument structure in DP
   Deriving Internal DP Structure
   N-Movement
Determiner phrases
Recall the structure of NPs:

- The status of D is a theoretical problem:
  - It is very different from all other specifiers.
  - It is the only category without its own phrase.
In this lecture, we will pursue the **DP-Hypothesis**:

- Noun phrases are really **determiner phrases**, and they have the following structure:

```
DP
  D  NP
```
Types of D

- **Articles**: a, the, ∅:
  - the letter/the letters
  - a letter/∅ letters

- **Demonstratives**: this, that, etc.
  - this letter/that letter

- **Demonstrative pronouns**: this, that, etc; they occur without the following noun
  - I saw this.

- **Quantifiers**: all, each, every, both, most, many
  - each letter/ most letters
At most one determiner

- Determiners usually do not co-occur:
  
  (1)  
  a. *the this man  
  b. *each a man  
  c. *some those letters  
  d. *every this man  

- There is a single slot available for determiners in the structure.
Determiner phrases

Hierarchy of projections

• Determiners care about what comes after them:
  • a needs a singular noun;
  • every, each need a singular noun;
  • most, all need a plural noun;
  • a cannot be combined with mass nouns: *a water;
  • etc.

• This should remind us of the hierarchy of projections:

(2) \( \text{CP} > \text{TP} > \text{NegP} > \text{PerfP} > \text{ProgP} > \text{VP} \)

Each projection only cares about what comes after it. Also, verbs care about what kind of embedded clause can come after them:

(3) a. I want [Sally to leave].
    b. *I want [that Sally leaves].
To summarize, heads “care about” what comes after them, i.e. about their complements.

We can push this idea of projection hierarchy to nominal phrases:

(4) $\text{DP} > \text{NP}$

This way, nominal phrases are actually $\text{DPs}$ – Determiner Phrases.

D “cares about” what kind of NP comes after it.

NPs still exists, they are complements of Ds.
Determiner phrases

Updated structure of nominals

```
DP
  └── D' ─── NP
        │    │
        │    └── D ─── the
        │        └── NP
        │            └── AdjP
        │                └── tall
        │                   └── N'
        │                        └── PP
        │                                       └── from
        │                                                └── Albania
        │                                                 └── PP
        │                                                     └── of
        │                                                          └── linguistics
        │                                                      └── N
        │                                             └── student
```

Determiner phrase: example
Pronouns cannot be combined with the determiners and behave differently than other nouns:

(5)  a. *the she   (6)  a. *the hungry he
     b. *this he  b. *Sue’s he with purple hair
     c. *every you  c. *he of Scotland

We conclude that pronouns are determiners, which sometimes can take NP complements (like other determiners):
Null determiners

- We revised NP to DP; now we have to say that verbs select DPs and not NPs.
- What happens if there is no D?

(7) a. I wrote letters.
    b. We ate jellyfish.

- We assume that there is a null determiner.
- Some languages don’t allow them at all:

(8) a. *J’ai écrit lettres. (French)
    I’ve written letters
    ‘I have written letters.’

    b. J’ai écrit des lettres.
    I’ve written some letters
    ‘I have written letters.’
Possessors

There are two main ways to express possessor relation in English:

(9)  
  a. an idea of Evan’s  
  b. Evan’s idea

Saxon Genitives

• Saxon Genitives are **incompatible with articles**:

(10)  
  a. *the Evan’s idea  
  b. *Evan’s the idea

• What does it tell us about the structure of possessives?
Possessors

Hypothesis 1

• Can possessor phrases be Ds?
• Probably not: heads are words, not phrases. Possessor can be a DP itself:

(11) [my best childhood friend’s] idea
Hypothesis 2

- Possessor phrases occur in Spec,DP position. Note that Possessor is itself a DP!

- What is D in this case?
  - Analysis 1: Empty (or contains just some [+poss] feature)
  - Analysis 2: ’s is in D position, and the Spec,DP contains just the possessor without the suffix.
Choosing between two analyses

- It is not trivial to choose between these two analyses. Carnie argues for Analysis 2, where $D=\cdot s$.
- However, there are problems:
  - Constituency of possessor+’s: Is $Evan's$ a constituent in $Evan's$ idea?
  - Also, some determiners are compatible with possessors:

(12) a. Evan’s every idea was insane.
    b. The Emperor’s every wish was immediately carried out.
Hungarian allows Ds to follow possessors much more than English:

(13)  
a. Peter minden kalap-ja  
   Peter’s every hat-DEF  
   ‘All Peter’s hats’

b. Peter ezen/azon kalap-ja  
   Peter’s this/that hat-DEF  
   ‘This/that hat of Peter’s’
Determiner phrases

Genitive case

• If we follow the analysis where the entire Saxon Genitive with ’s is in Spec,DP, we can say this is just a special case on the noun: Genitive case.

• Many languages have special form for it, similar to having separate forms for other cases. English marks it with ’s:

(14) a. korov-a
    cow-NOM

    b. korov-u
    cow-ACC

    c. korov-y
    cow-GEN

(Russian)
More null determiners

Null determiners occur with:

1. Plural nouns: I have sent [∅ letters] to the White House.
2. Possessors: [Evan’s ∅ idea] is crazy.
4. Proper names: [∅ Sally] is smart.
Proper names

• In English, proper names usually do not have determiners (some linguists even analyze proper names as Ds and not Ns):

(15) a. *the Sally  
    b. *the Paris

• However, sometimes determiners are permitted:

(16) a. The Sally we all like was at the party.  
    b. The Paris I used to know is no more.

• Some languages need a determiner with Proper nouns:

(17) O Giorgos ephuge  
     the George left  
    ‘George left.’  
     (Greek)
DPs are parallel to sentences

There is often a parallelism between sentences (or just VPs) and DPs:

(18)  a. Picasso’s painting of musicians.
     \hspace{1cm} \text{Agent} \hspace{2cm} \text{Theme}
 b. Picasso painted musicians.
     \hspace{1cm} \text{Agent} \hspace{2cm} \text{Theme}

• In both of these phrases,
  • \textit{Picasso} is an \text{Agent}, and
  • \textit{musicians} is a \text{Theme}.

• In VPs there is also \textbf{accusative case}, but since nouns don’t assign it, we need a preposition \textit{of} to assign Case:

(19)  *Picasso’s painting musicians
But there is another possibility:

(20)  
a. The problem’s analysis was very complicated  
b. The analysis of the problem was very complicated.

- In these example, the problem is not an Agent, but the Theme.
- Notice that of-PP cannot be an Agent, while Saxon genitives can be both Themes and Agents:

(21)  
a. Morticia’s analysis was successful. Agent or Theme  
b. The analysis of Morticia took three hours. Theme
DPs are parallel to sentences

- **Saxon genitive** can be Agent or Theme.
- Of course, it could also be just a possessor, (22-a).
- Another way to express possession is by Independent Genitive, (22-b).

\[(22)\]

- a. Sally’s wallet
- b. the wallet of Sally’s

- Notice, nouns like wallet do not have any argument structure and do not assign θ-roles.
Determiner phrases

DPs are parallel to sentences

Summary

<table>
<thead>
<tr>
<th></th>
<th>Saxon Gen.</th>
<th>of-PP</th>
<th>Independent Gen.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Agent</strong></td>
<td>✓</td>
<td>×</td>
<td>×</td>
</tr>
<tr>
<td><strong>Theme</strong></td>
<td>✓</td>
<td>✓</td>
<td>×</td>
</tr>
<tr>
<td><strong>Possessor</strong></td>
<td>✓</td>
<td>×</td>
<td>✓</td>
</tr>
</tbody>
</table>
Determiner phrases

DPs are parallel to sentences

• Interestingly, Agents never combine with Possessors, even though they can be expressed differently:

(23)  
\begin{align*}
\text{a. Morticia’s photograph of Pugsly} \\
\text{Agent/Poss} & \quad \text{Theme} \\
\text{b. that photograph of Pugsly of Morticia’s} \\
\text{Theme} & \quad \text{Poss} \\
\text{c. *Gomez’s photograph of Pugsley of Morticia’s} \\
\text{Agent} & \quad \text{Theme} \quad \text{Poss}
\end{align*}

• It is possible to express this meaning using different construction:

(24)  
\begin{align*}
\text{a. That photograph by Gomez of Pugsley of Morticia’s} \\
\text{b. Gomez’s photograph of Pugsley belonging to Morticia}
\end{align*}
• What is the structure of DP and arguments inside it?
• We will follow the analysis which makes DPs similar to TPs and NPs similar to VPs.

Diagram:

TP

\[ \text{DP}_i \quad \text{T'} \]

\[ \text{Subject} \quad \text{T} \quad \text{VP} \]

\[ \text{DP}_i \quad \text{V'} \]

\[ \langle \text{Subject} \rangle \quad \text{V} \quad \text{DP} \]

\[ \text{Object} \]

DP

\[ \text{DP}_i \quad \text{D'} \]

\[ \text{Saxon Gen} \quad \text{D} \quad \text{NP} \]

\[ \langle \text{Saxon Gen} \rangle \quad \text{N'} \]

\[ \text{N} \quad \text{PP} \]

\[ \text{Complement} \]
Deriving internal DP structure

- **Agent** moves to Spec,DP to satisfy **EPP**.
- Phrase in Spec,NP is assigned **Genitive Case** by D (similar to Nominative case assignment by T).

```
DP
  DP_i
    Morticia’s

D’
  D
    ∅
  NP
    GEN
    N’
      N
        PP
          analysis
            of the problem

EPP
```

\[\text{DP}_i \rightarrow \text{Morticia’s} \rightarrow \text{D’} \rightarrow \text{D} \rightarrow \text{NP} \rightarrow \text{GEN} \rightarrow \text{N’} \rightarrow \text{N} \rightarrow \text{PP} \rightarrow \text{analysis} \rightarrow \text{of the problem} \rightarrow \text{Agent} \rightarrow \text{Theme} \]
Deriving internal DP structure

- If no Agent, Theme moves to Spec,DP to satisfy EPP (as in unaccusative verbs!).
- Now Theme is assigned Genitive Case by D.

```
DP
  DP_i
  the problem’s

D’
  N
  N’

D
  NP
  ∅

analysis
  (the problem)

EPP

THEME
```
If the **Theme** is an of-PP, there is no need for case, and no need for movement.

But we need **D the**: no Genitive case, doesn’t trigger movement.
Deriving possessors

- **Possessors** probably also start in Spec,NP and move to Spec,DP, similar to **Agents**.
- Possessor in Spec,NP is assigned **Genitive Case** by D and shows up as Saxon genitive with 's.

```
DP
  /\     \        
DP_i D'     
  /\      
Morticia's D
 /
∅ EPP

NP
  /\     \        
DP_i GEN N'     
  /\      
{Morticia's} N
 /
wallet
```
Summary of the analysis

- DPs are similar in their structure to TPs.
- Some nouns also assign $\theta$-roles to their arguments, and this process is similar to what we saw in verbal domain.
- There is a movement of the Agent from Spec,NP to Spec,DP: similar to the movement of subjects from Spec,VP to Spec,TP.
- Themes start as complements to Ns (similar to Themes of verbs):
  - If Theme is a PP, the case is assigned by of, and there is no need to move the Theme.
  - If Theme is a DP, it needs a case, and because of that it moves to Spec,DP and surfaces as Genitive with 's.
- Possessors are similar to Agents: they start in Spec,NP and move to Spec,DP.
N-movement

- Recall that in French V moves to T.
- Is it possible for N to move to D?
Determiner phrases

N-movement

Italian (Longobardi 1994)

(25) il mio Gianni
    the my Gianni
    ‘My Gianni’

(26) Gianni mio
    Gianni my
    ‘My Gianni’
N-movement

Swedish, Hebrew (Ritter 1991)

(27) hus-et
    house-the
    ‘the house’

(Swedish)

(28) beyt ha-iS
    home the-man
    ‘the man’s home’

(Hebrew)
Warning

• This analysis is not fully accepted by the syntacticians. There are some problems with it and some loose ends, which make it a little less logical and clear than the analysis of TPs and VPs.
• Some syntacticians postulate a special projection PossP inside DP for possessors.
• Some syntacticians argue about the nature of the Genitive case.
• Some syntacticians deny the existence of DPs in languages without articles.
• Some syntacticians argue for much more sophisticated structure of DP with another dozen projections inside it.

Be careful with DP...