Syntax 5

**syntactic dependencies:** Textbook pg. 233-255
- subject-aux inversion
- wh-movement
- DP-movement

### English Yes-no questions

- Bill *will* go to the movies
- Will Bill *go* to the movies?
- Will Bill ___ go to the movies?
- Mary *can* sing
- Can Mary sing?
- Can Mary ___ sing?

### Subject-auxiliary inversion

- English yes-no questions are formed by inverting the subject and the auxiliary/modal verb

### English yes-no questions

- John *has* bought a book
  - Has John ___ bought a book?
- Bill *is* buying a book
  - Is Bill ___ buying a book?
- Bill *would* buy a book on that occasion
  - Would Bill ___ buy a book on that occasion?
- Bill *might* buy a book
  - Might Bill ___ buy a book?

### English yes-no questions

- Bill bought a book
  - *Bought Bill a book?*
- Did Bill buy a book?

Only auxiliaries can invert with the subject. Main verbs never do.

Instead, the auxiliary "do" has to be inserted. This operation is called "do"-insertion, or "do"-support.
Do-insertion

- Bill bought a book
- *Does Bill bought a book?
- *Do Bill buy a book?
- Did Bill buy a book?

Auxiliary "do" has to match the tense, number, and person of the main verb of the intended sentence.

With the appropriate form of "do", the main verb no longer carries the features for tense, number and person.

Embedded yes-no questions

- John asked [ if Bill will go to the movies ]
- [ embedded question ]
- *John asked [ if will Bill ___ go to the movies ]
- John asked [ whether Bill will go to the movies ]
- [ embedded question ]
- *John asked [ whether will Bill ___ go to the movies ]

There is no subj-aux inversion in embedded questions

Why not?

Embedded yes-no questions

- John asked [ if Bill will go to the movies ]
- [ embedded question ]
- *John asked [ if will Bill ___ go to the movies ]
- John asked [ whether Bill will go to the movies ]
- [ embedded question ]
- *John asked [ whether will Bill ___ go to the movies ]

There is no subj-aux inversion in embedded questions

Why not?

Wh-questions

- What languages can you speak?  
- Who should Mary talk to?  
- Where did you put the book?  

*wh-words: who, what, where, which, when, why, how

Which principles of grammar do wh-questions seem to violate?

Wh-questions

Echo questions

- what languages  you can speak  what languages?
- who  Mary should talk to  who?
- where  did you put the book  where?

Wh-movement

D-structure  

S-structure
"seems"

- It seems that Mary is leaving
- The verb "seems" assigns a theta role to its sentential complement, but no theta role to its subject
- The verb "left" assigns a theta role to its subject

TP
DP
V
CP
TP

It seems that Mary is leaving

The verb "seems" assigns a theta role to its sentential complement, but no theta role to its subject

The verb "left" assigns a theta role to its subject

Raising predicates

- It is likely that Bill bought a house
- Bill is likely to have bought a house
- It is certain that the weather will change
- The weather is certain to change
- It appears that Bill is right
- Bill appears to be right

DP movement

D-structure

S-structure

Subject-to-subject raising

Passive

- Bill ate an apple
- The apple was eaten

ate, V [DP, DP] eaten, Vpass [DP, DP]

<agent, theme> <agent, theme>

transitive intransitive

passive is an operation of intransitivization

Grammar Principles

- Every clause must have a subject
- Theta Criterion must be satisfied
- Every DP must have Case
Theta roles

- Thematic roles are part of predicate’s meaning, which gets specified in the lexicon
- Thematic roles must be assigned locally
- What does it mean to be local?
  - within the projection of the head, i.e.:
    - complement position
    - specifier position

Case assignment

- Case is a morphological realization of the structural position (subject, object, …) an argument occupies in the surface structure and it is not correlated with theta role
- Case is assigned/licensed to an argument at surface structure
- Case is a property of the structural relationship an argument has with particular nodes in the tree:

Case assignment

- Nominative case is licensed in the specifier of a finite TP
- Accusative case is licensed to the sister of V
- Accusative case is licensed only if the verb also has an argument to which nominative case has been licensed

Passive

\[
\text{D-structure:} \quad \text{TP} \quad \text{DP} \quad T' \\
\text{S-structure:} \quad \text{TP} \quad \text{DP} \quad \text{T} \quad \text{VP} \quad \text{was} \quad \text{D} \quad \text{NP} \quad \text{the} \quad \text{apple} \\
\]

Why ‘things’ move?

\[
\text{D-structure:} \quad \text{TP} \quad \text{DP} \quad T' \\
\text{S-structure:} \quad \text{TP} \quad \text{DP} \quad \text{T} \quad \text{VP} \quad \text{seems} \quad \text{DP} \quad \text{T} \quad \text{VP} \quad \text{be} \quad \text{V} \quad \text{leaving} \\
\]

DP movement

\[
\text{D-structure:} \quad \text{TP} \quad \text{DP} \quad T' \\
\text{S-structure:} \quad \text{TP} \quad \text{DP} \quad \text{T} \quad \text{VP} \quad \text{seems} \quad \text{DP} \quad \text{T} \quad \text{VP} \quad \text{be} \quad \text{V} \quad \text{leaving} \\
\]

\[
\text{DP moves to get Case} \\
\text{Subject-to-subject raising} \\
\]
Why ‘things’ move?

• DP movement:
  – subject to subject raising
  – passive
  – ...

• Wh-movement:
  – wh words
  – ...

• Aux-movement

The Grammar, so far

Lexicon

Principal:
X-bar schema
Theta Criterion
Case Filter
Subjects are obligatory

Syntactic operations:
Wh-movement
DP-movement
Verb-movement

D structure

S structure