

Functional Projections

Clause Types, TP, CP and DP

Ling 322

Read *Syntax*, Ch. 7

(Lecture notes based on Andrew Carnie's notes)

Clause = Subject + Predicate

- Subject: the NP being assigned a property
- Predicate: the property being assigned to the subject

Fregean predicate: a single vocabulary item such as a verb, an adjective or a noun that has a capacity to combine with one or more arguments.

Aristotelian predicate: Everything in a clause except for the subject. e.g., VP

- (1)
- a. The man left.
 - b. The man left in the morning.
 - c. The man ate the cake.
 - d. The man must eat the cake.
 - e. Bill is very tall.
 - f. Kim is fond of syntax.
 - g. Susan is a linguistics student.

Argument vs. Adjunct

- Argument: refers to central participants in a situation denoted by a (Fregean) predicate. e.g., subject, object

- (2) a. Bill laughed.
- b. Bill hit Mary.
- c. Bill gave a book to Mary.
- d. Bill told Mary that Sue left.
- e. Bill is fond of Mary.

In general, arguments of a verb are syntactically obligatory. There are however exceptions.

- (3) a. Bill ate a sandwich.
- b. Bill ate.

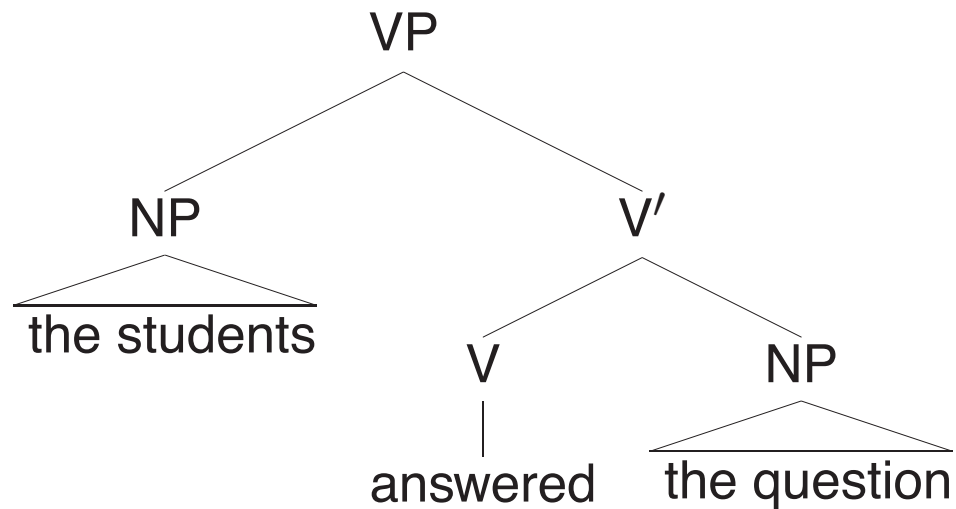
- Adjunct: describes properties of a situation taken to be less central, such as manner, time, place, reason, etc. They are modifiers of a predicate. Syntactically, adjuncts are optional.

- (4) a. Bill laughed loudly.
- b. Bill ate a sandwich in the morning.
- c. Bill gave a book to Mary in the park.

VP

- Transitive tree

(5) The students answered the question.



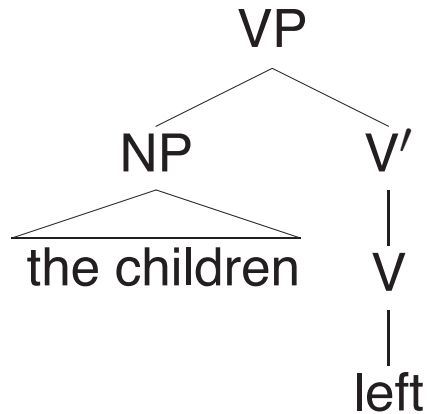
We will put the subject of the clause in the specifier position.

VP (cont.)

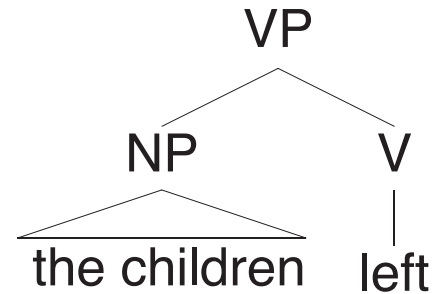
- Intransitive tree

(6) The children left.

a.



b.



– Which structure should we choose?

Theory-internal reasons to prefer (a) to (b):

Simpler specification for *do so* replacement.

Simpler definition of the notion of specifiers.

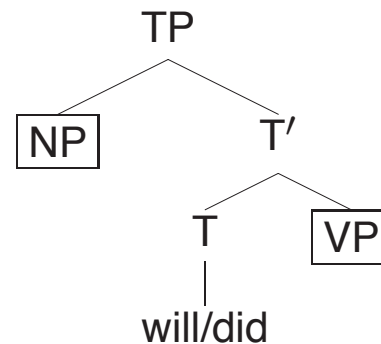
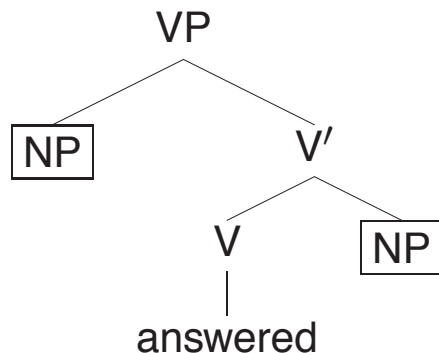
TP

- What about sentences containing auxiliary verbs?
 - (7) a. The students will answer the question.
 - b. The students did answer the question.

We need to reconcile the following facts.

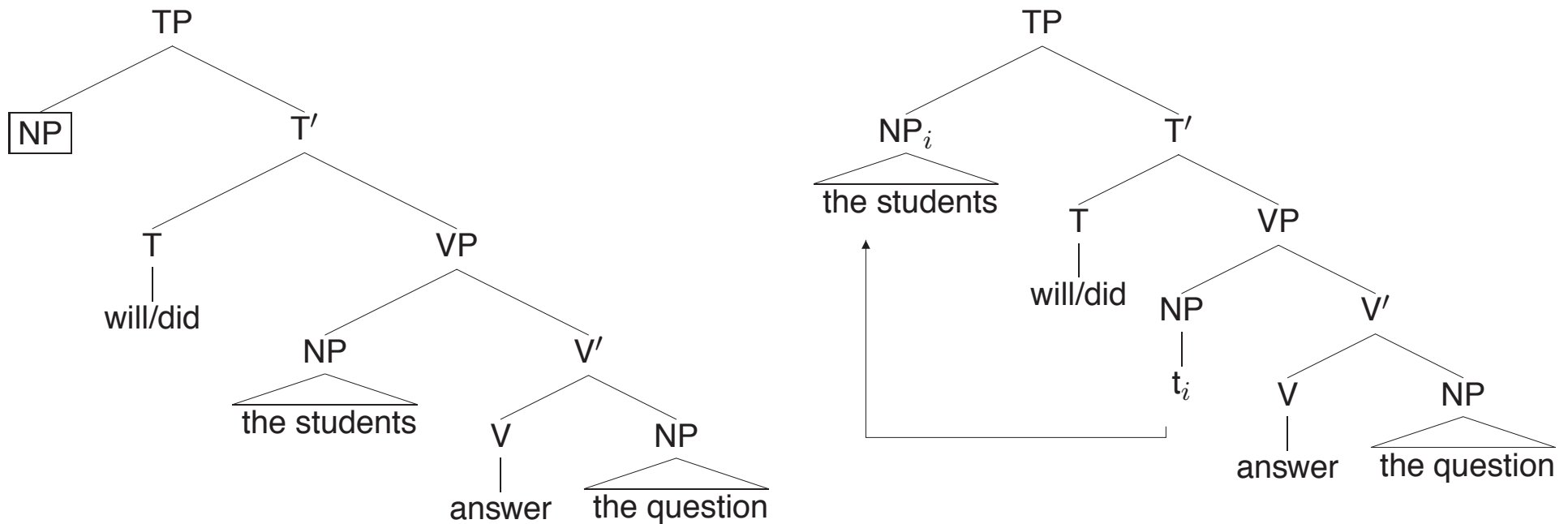
- (7) and (8) have the same predicate and argument.
 - (8) The students answered the question.
- Verb *answer/answered* is transitive, and projects a transitive VP.
- Auxiliary verbs *will* and *did* encode tense.

We will assume that these auxiliary verbs head T^0 , projecting to TP. T^0 takes VP as its complement and has a position for a specifier.



TP (cont.)

- When we put these VP and TP trees together, we end up with the wrong word order between the subject and the auxiliary verb.



- A simple movement operation that moves *the students* from [Spec,VP] to [Spec,TP] will give us the right word order.

TP (cont.)

- Can we generalize the TP clausal structure to sentences with no auxiliary verbs?

Should sentences with no auxiliary verbs also project to TP?

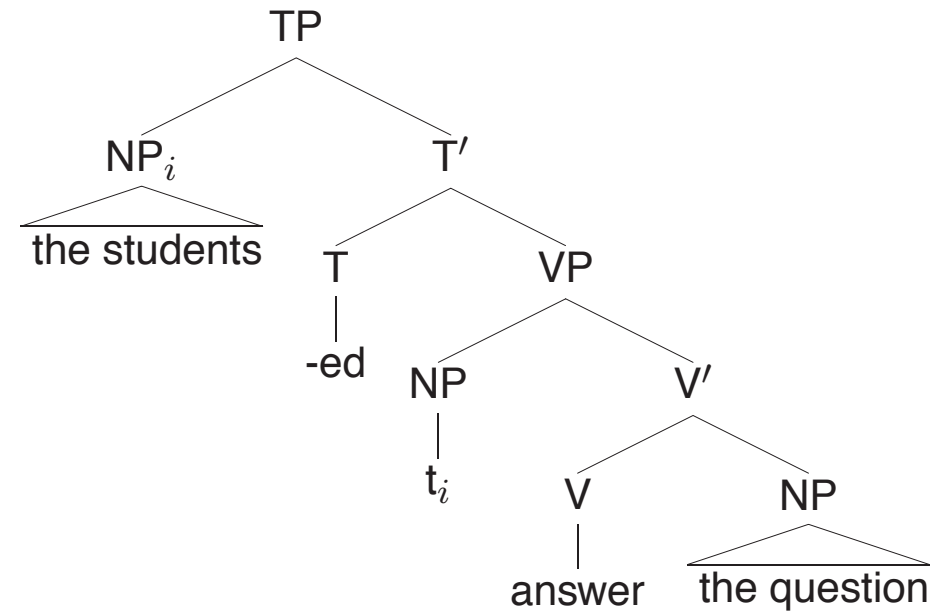
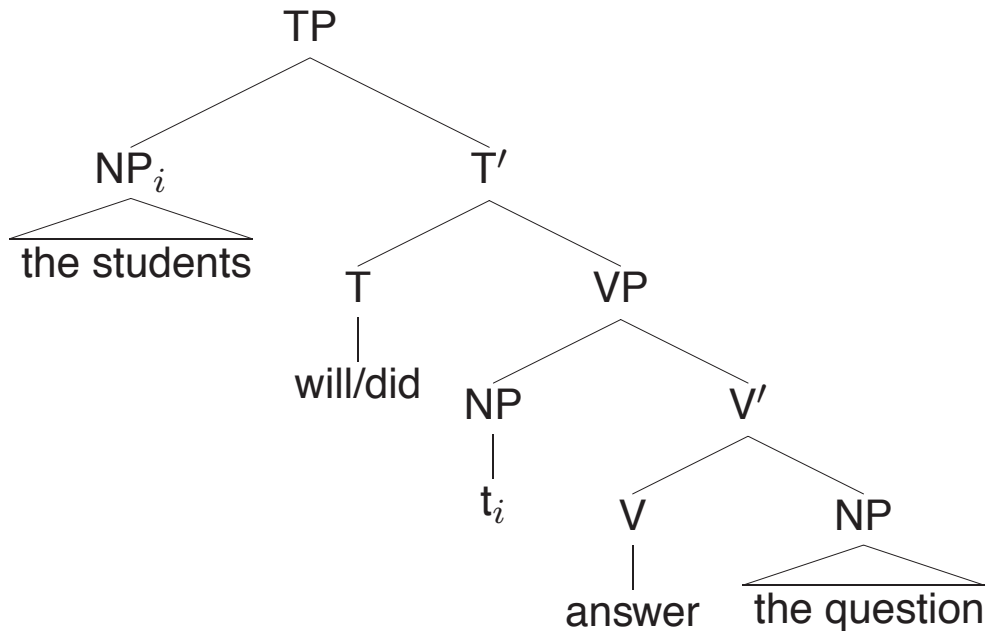
- Tensed auxiliaries and tense inflection on verbs are in complementary distribution.

- (9)
- a. The students will answer the question.
 - b. The students answered the question.
 - c. * The students will answered the question.

What does this fact suggest?

TP (cont.)

- Tense inflection is also an instance of T^0 .



So, T^0 is obligatory in all clauses.

- But now, you end up with a wrong order: a suffix appears before the verb. What!

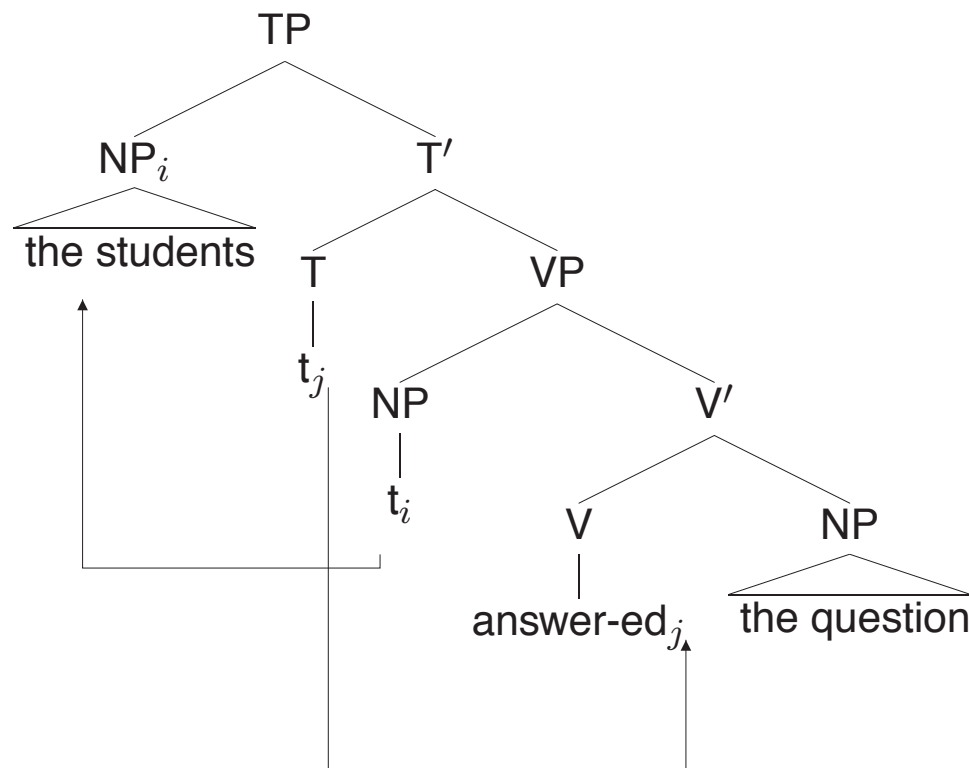
TP (cont.)

- What is the difference between tense inflectional suffixes and auxiliary verbs?

Suffixes are bound morphemes, must be attached to something.

Auxiliary verbs are free morphemes, can stand alone.

- Tense inflections are generated under T^0 , but they must be attached to a verb, so they move by lowering and attaching to the verb.



TP (cont.)

QUESTION: How can this tense lowering mechanism apply to sentences with irregular verbs, like *The children left*?

QUESTION: Where should we place infinitive *to* as in *I want [for him to dance]*?

TP (cont.)

- VP-internal subject hypothesis (Koopman and Sportiche 1991)

Subjects originate inside the VP.

- Gives an interesting account of quantifier stranding.

- (10) a. The students should all attend the class.
b. All the students should attend the class.

- The verb puts restrictions on (=selects) the type of arguments it can occur with. By putting the subject inside the VP, a unified account can be given for how the verb selects for the subject and the object: they are both selected within a VP by a lexical category (i.e., V).

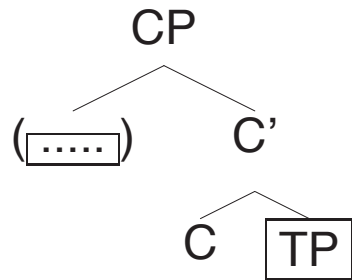
CP

- What is the head of a clause with a complementizer?

- (11) a. Bill said [that Mary left].
b. Bill wonders [if Mary left].

- C^0 projection

A complementizer takes a clause as a complement making it into a subordinate/embedded clause.



- Example derivation

- (12) Bill said that Mary believed that Sue danced.

- What goes in [Spec,CP]? We will get back to this later.

CP: Yes-No Questions

- Sub-aux inversion in matrix *yn*-questions

(13) a. Doug will see Renee.
b. Will Doug see Renee?

- No subject-aux inversion in embedded *yn*-questions

(14) a. I wonder [if Doug will see Renee].
b. * I wonder [if will Doug see Renee].

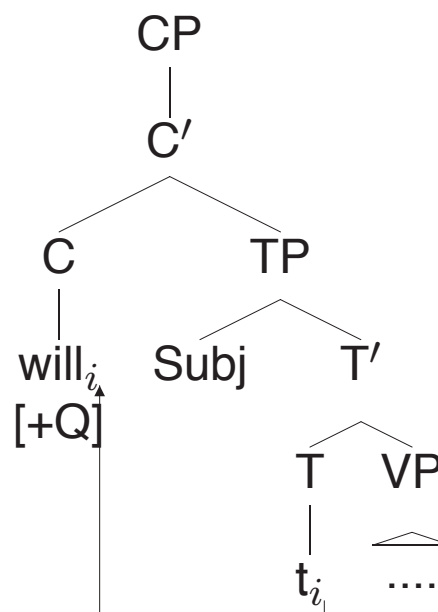
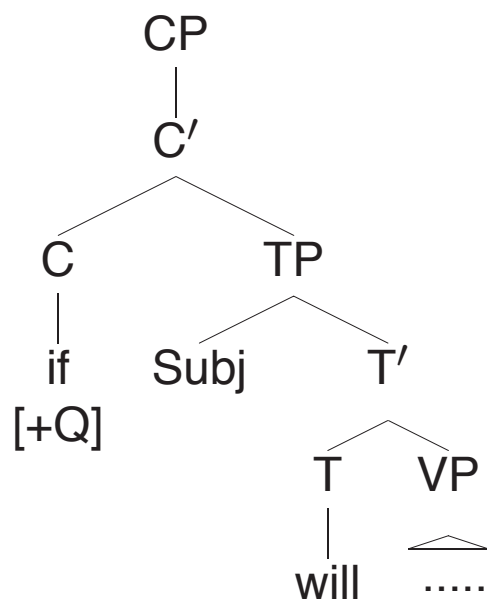
So, having a complementizer in C^0 blocks sub-aux inversion. What does this suggest about the position of the auxiliary verb in matrix *yn*-questions?

CP: Yes-No Questions (cont.)

- *Yn*-questions must contain something in C^0 . Hence, they project to CP.

Embedded questions contain a question complementizer in C^0 .

Matrix questions cannot contain a complementizer in English for some reason. Instead, C^0 is filled by moving the auxiliary verb.



CP: Evidence for an Unpronounced C^0 in Non-Questions

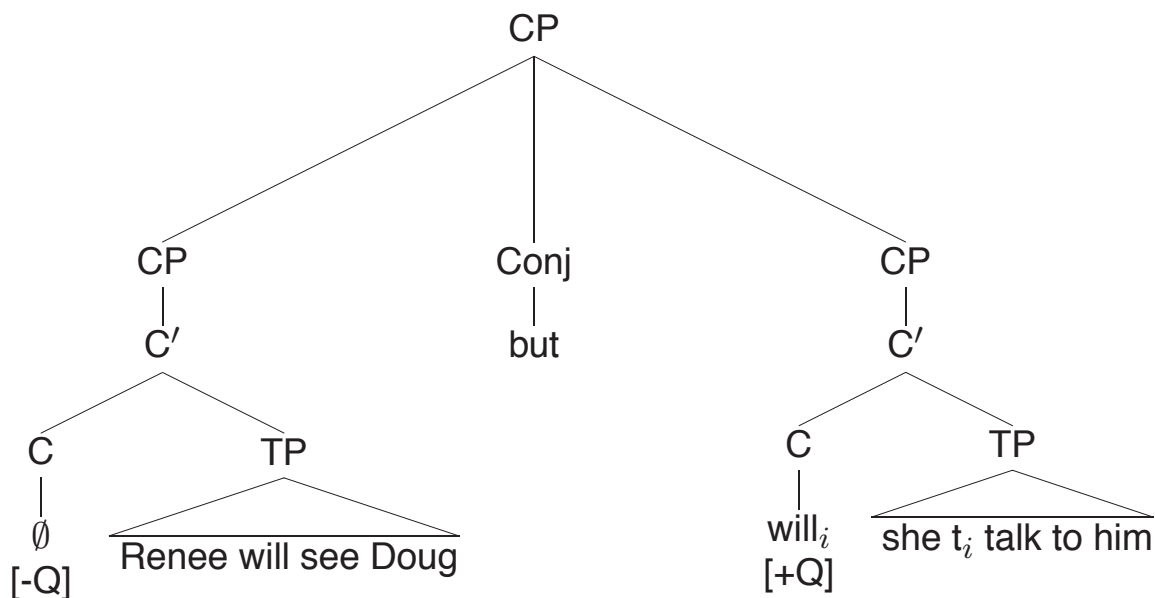
- Do non-questions also project to CPs?

(15) Renee will see Doug.

- Recall that conjunction only links together items of the same category. If questions are CP projections, then anything they are conjoined with must also be CP projections.

(16) Renee will see Doug, but will she talk to him?

\implies Non-questions must have an unpronounced C^0 , projecting to CP.



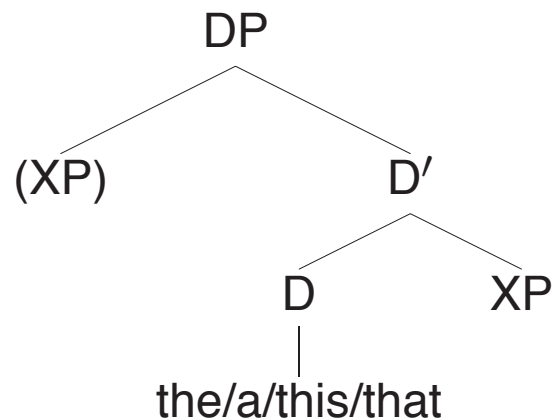
DP

- Nouns in sentences in general cannot stand alone, but must be accompanied by a determiner.

- (17) a. * Destruction was harsh.
b. * We encountered destruction.

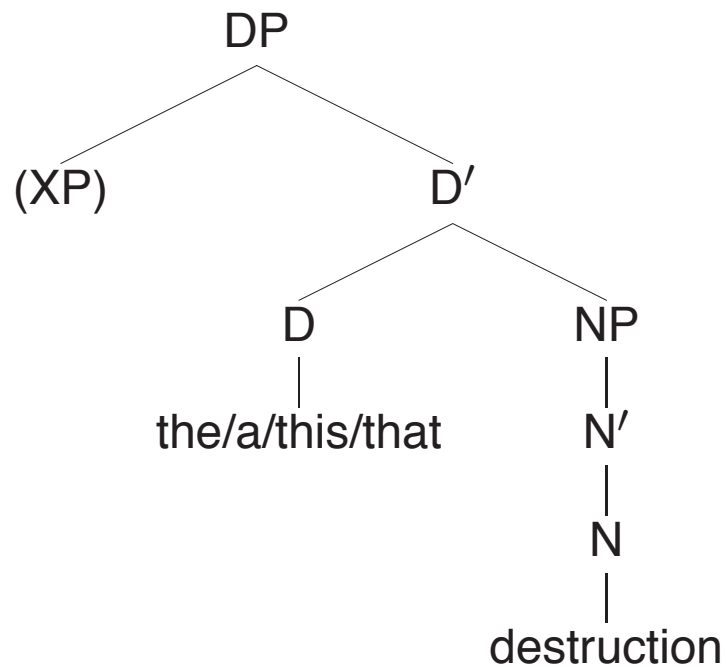
DP Hypothesis (Abney 1987): From this, we conclude that head of a nominal structure is not a noun but rather a determiner (D^0).

This then means that the maximal projection of a nominal structure is DP.



DP (cont.)

- A determiner must occur with a noun. From this, we conclude that D^0 subcategorizes for an NP as its complement.



Where does 's go?

- Is it a suffix that attaches to a word?

(18) Bill's coat

- 's attaches to phrases.

(19) a. the queen of England's crown

b. the dancer from New York's shoes

c. the man standing over there's coat

- Meaningwise, a noun phrase with genitive seems to be definite.

(20) a. the queen of England's crown

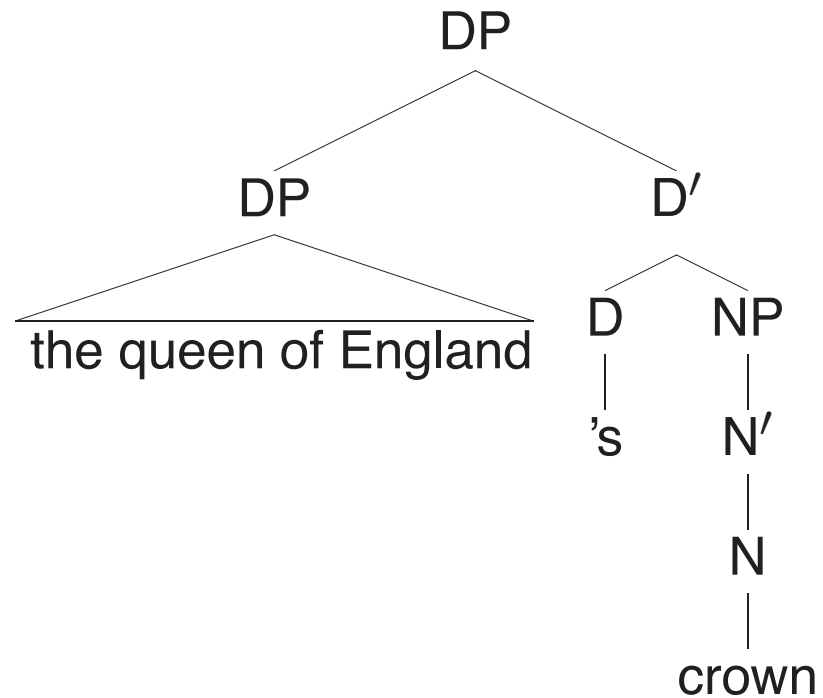
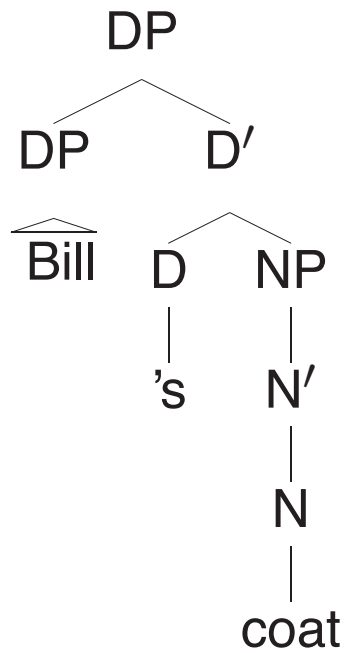
b. the crown of the queen of England

- 's is in complementary distribution with determiners.

(21) * the queen of England's the crown

Where does 's go? (cont.)

- 's heads D^0 , just like other determiners.



DP Structures

- Transitive vs. intransitive DP

(22) Articles

- a. * Bill read a.
- b. * Bill read the.

(23) Pronouns

- a. We Americans / you fools
- b. We / you / I / he / she / they left.

(24) Demonstratives

- a. I will buy this book / that book
- b. I will buy this / that

- Silent determiners

- (25) a. Bill sells cars / apples / rice
b. Bill bought a car / an apple / the rice.

- Proper names

(26) Bill

(27) O Yannis
the Yannis

Putting it All Together

