

*February 12, 2004*

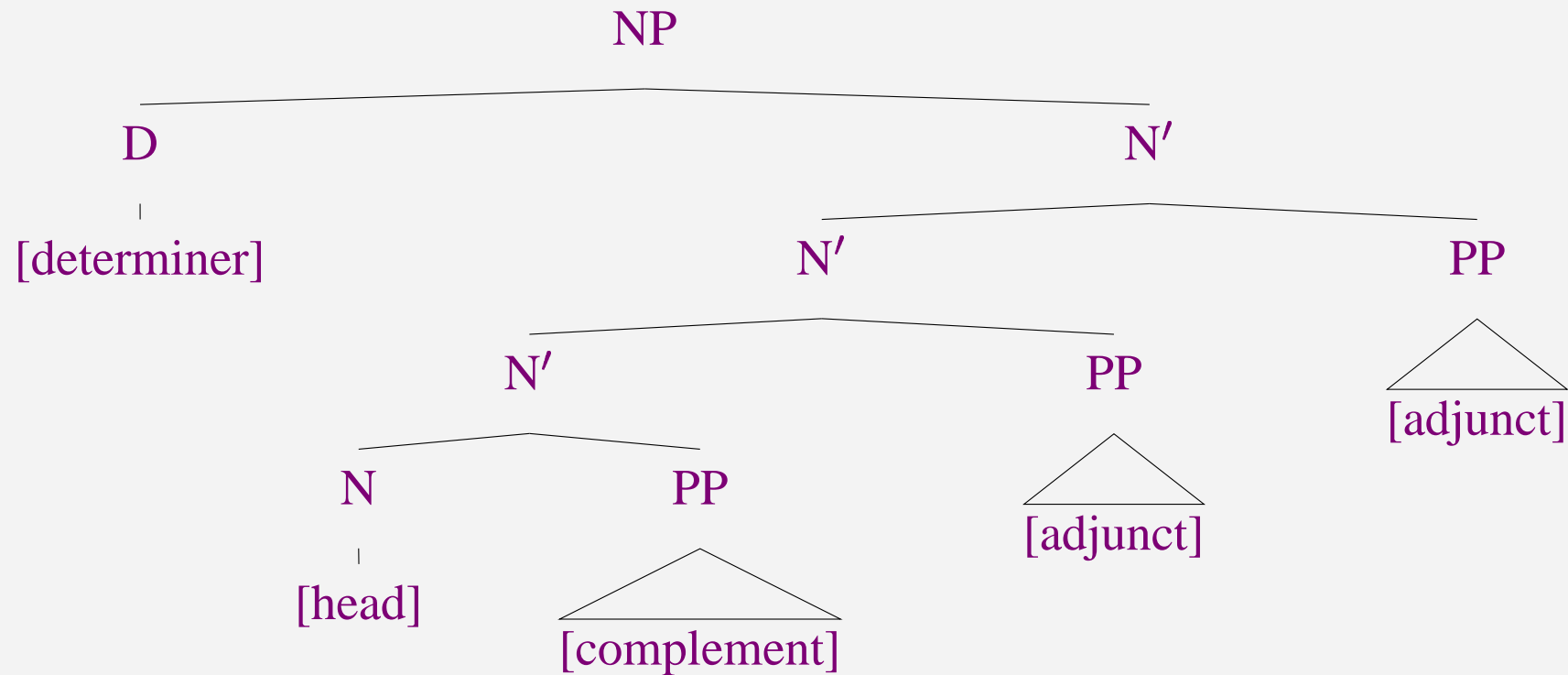
*Ch. 4.5–4.6*

*Optionality, complements v. adjuncts*

## *Overview*

- Review: Rules, structure
- Optionality
- Single word N's
- Differences between complements and adjuncts
- In-class exercise (complements v. adjuncts, attachment ambiguity)
- Return HW3.

## Review: Structure



- Complements are daughters of N' and sisters of N.
- Adjuncts are daughters of N' and sisters of N'.
- Determiners/specifiers are daughters of NP and sisters of N'.

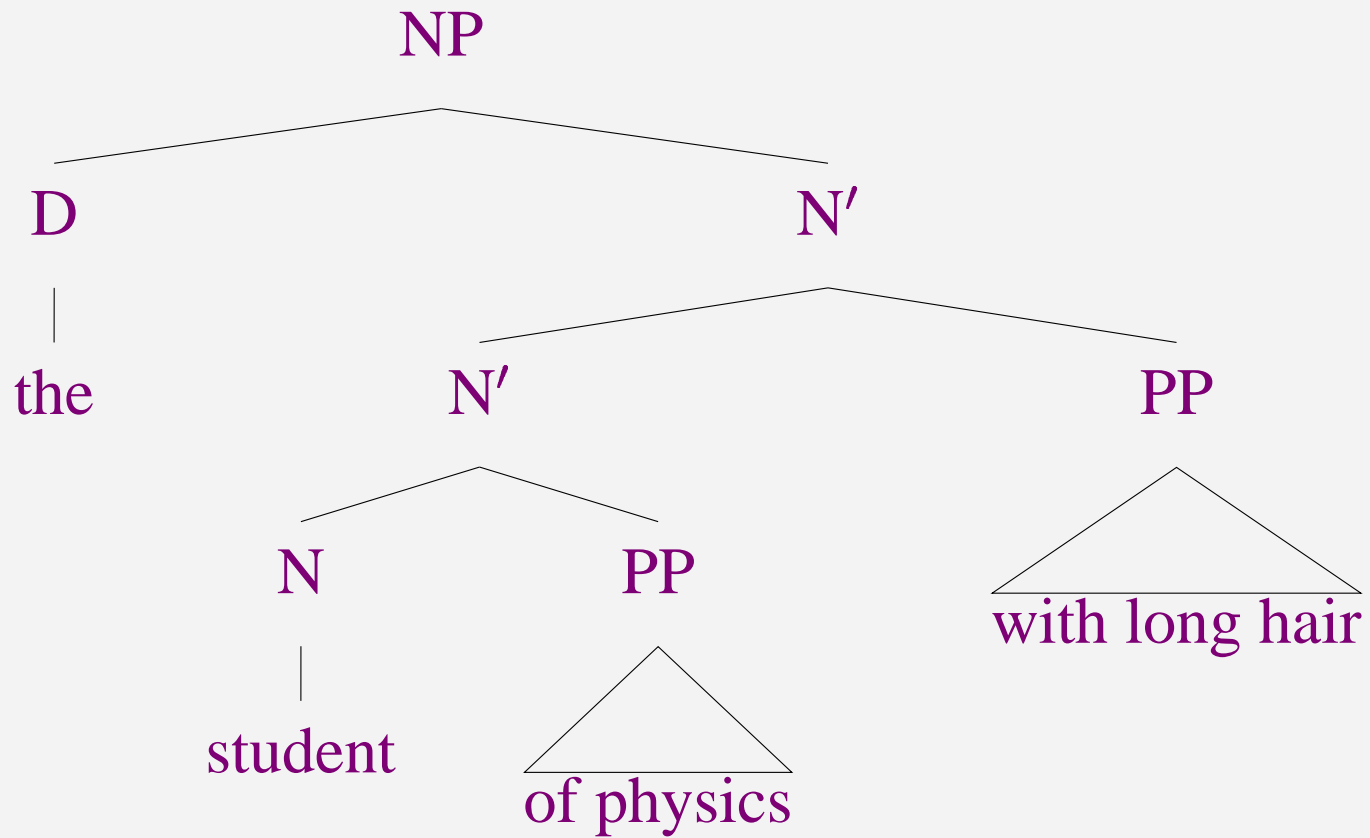
## *Review: Rules*

- $NP \rightarrow D N'$
- $N' \rightarrow N' PP$  (adjunct rule)
- $N' \rightarrow N PP$  (complement rule)

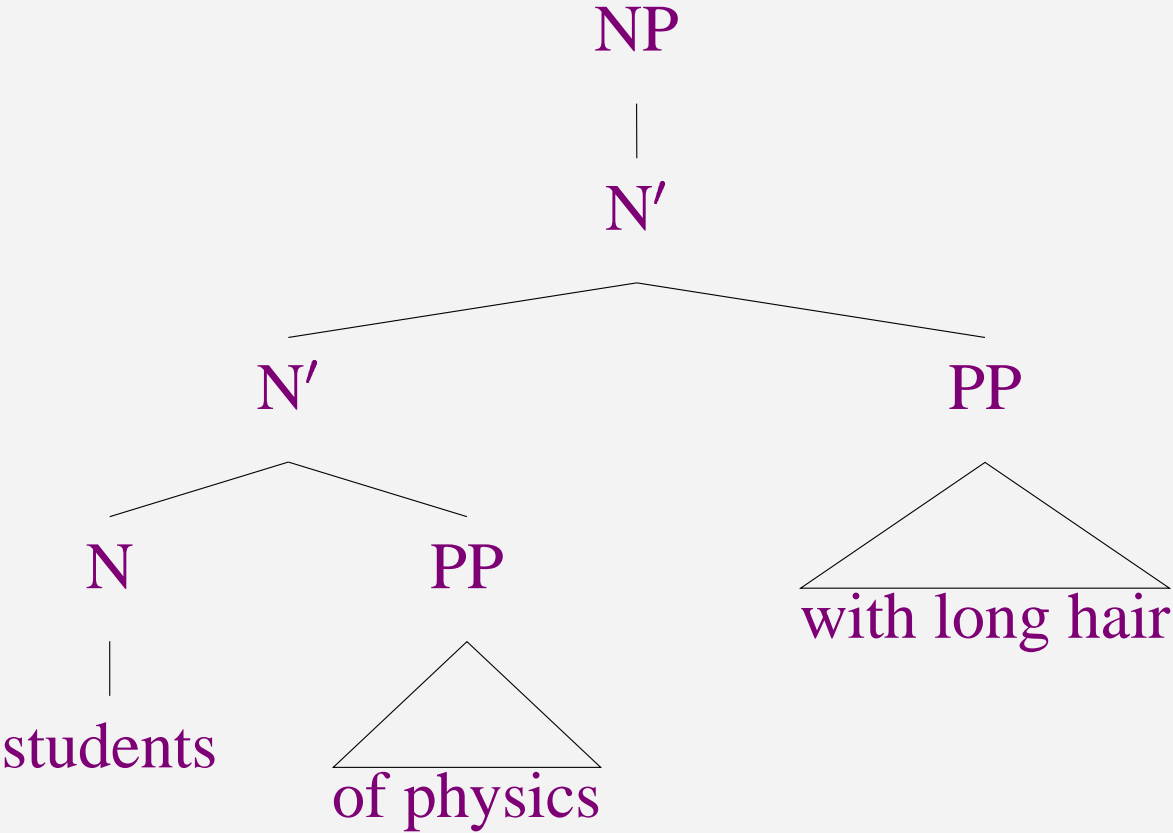
## *Optionality*

- Adjuncts and complements of noun phrases are always optional in English.
- (Caveat: Fixed phrases aside.)
- Determiners are optional in English, under the right circumstances.
- Examples?

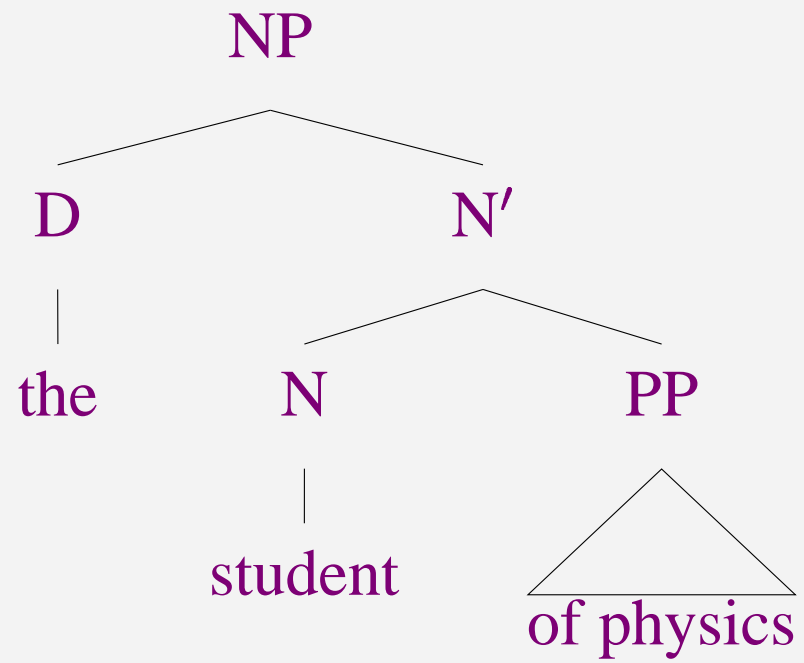
*All positions filled*



*No determiner*

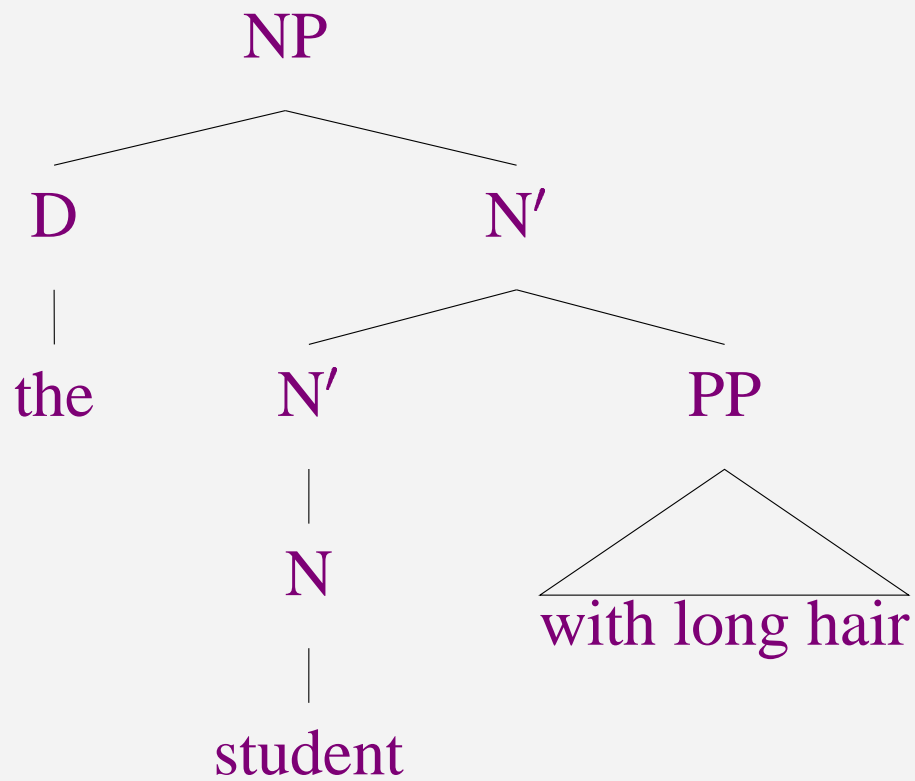


# *No adjunct*

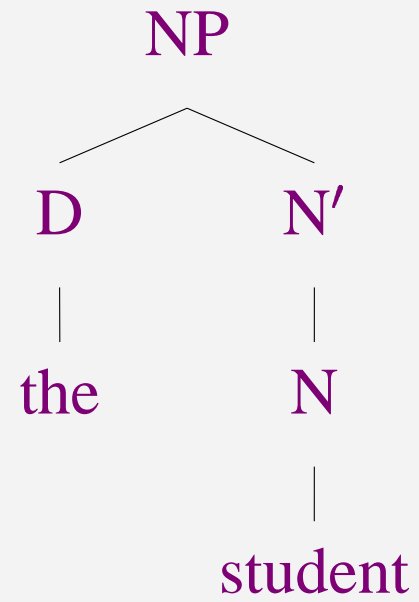




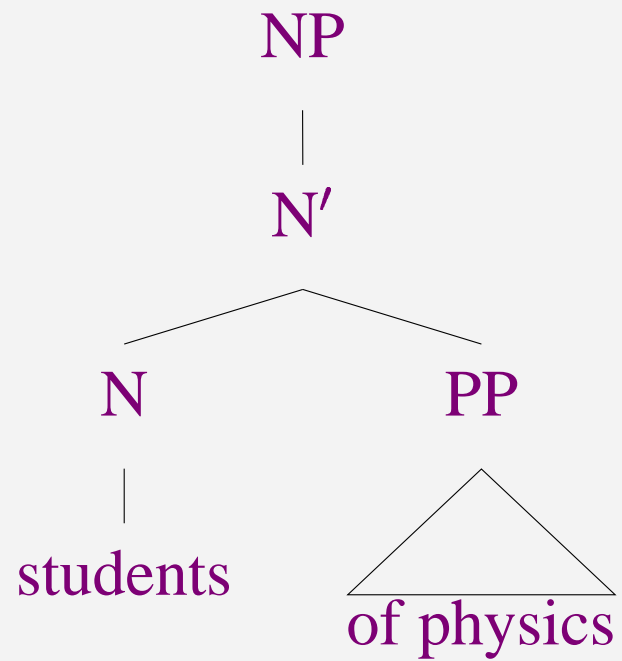
# *No complement*



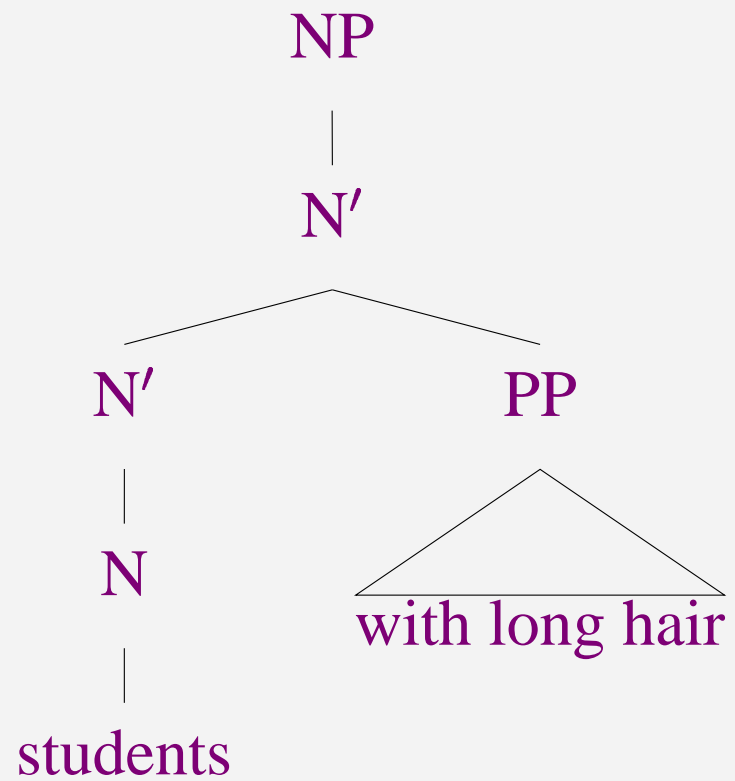
*No adjunct or complement*



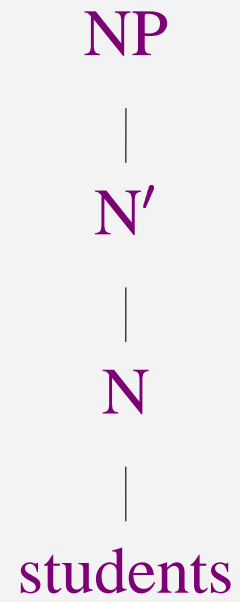
*No determiner or adjunct*



*No determiner or complement*



*No determiner, adjunct, or complement*



## *Rules for optionality (1/2)*

- Rules:
  - $NP \rightarrow D N'$
  - $N' \rightarrow N' PP$  (adjunct rule)
  - $N' \rightarrow N PP$  (complement rule)
- As it stands, these rules only account for the optionality of one element (determiner, adjunct or complement). Which?
- How might we adapt the rules to handle the others?

## *Rules for optionality (2/2)*

- Rules:
  - $NP \rightarrow (D) N'$
  - $N' \rightarrow N' PP$  (adjunct)
  - $N' \rightarrow N (PP)$  (complement)
- In what way will these rules overgenerate?
- Why not have a rule  $N' \rightarrow N'$ ?

## *Categorial status of single Ns*

- When are single Ns also N's?
- Are they always also N's?
- What kind of linguistic examples might support or refute this aspect of the model?



## *Single Ns as N's (sometimes): Data*

- The [N, student] with short hair is dating the *one* with long hair.
- This [N, student] works harder than that *one*.
- Which student are you referring to? \*The *one* of physics?
- \*The [N student] of chemistry was older than the *one* of physics.

## Summary

- Rules:
  - $NP \rightarrow (D) N'$
  - $N' \rightarrow N' PP$  (adjunct)
  - $N' \rightarrow N (PP)$  (complement)
- Everything but the N is (in principle) optional.
- Optionality of adjuncts handled differently from optionality of determiners or complements.
- Optionality means that depending on what else is around, a single N may or may not also be an N'.
- The *one* pronominalization facts support this analysis (given the right assumptions about where *one* can go).

## *Differences between complements and adjuncts*

- Semantic: # of properties being predicated
- Semantic: ambiguity
- Semantic: co-occurrence restrictions
- Syntactic: Recursivity/iterability
- Syntactic: Ordering
- Syntactic: Coordination
- Syntactic: Extraposition
- Syntactic: Preposing/extraction

## *Questions to ask of each difference*

- Can it be used to support a distinction between complements and adjuncts?
- Can it be used to support the particular structural distinction assumed in this model?
- Can it be operationalized as a test?

## *# of properties predicated*

- *John is a student of physics:*  $\text{student-of-physics}(\text{John})$  or  $\text{student}(\text{John}, \text{physics})$
- *John is a student with long hair:*  $\text{student}(\text{John}) \wedge \text{have-long-hair}(\text{John})$
- Hornstein & Lightfoot's claim: Each N' corresponds to one property being predicated.

## *Ambiguity*

- a student of high moral principles
- the representative from Texas

## *Co-occurrence restrictions*

- a student of physics
- \*a boy/girl/teenager/punk of physics
- a student with long hair
- a boy/girl/teenager/punk with long hair

## *Recursion/iteration*

- \*a student of physics of chemistry of math
- a student with long hair wearing a blue coat sitting in the back of the room



## *Ordering*

- a student of physics with long hair
- \*a student with long hair of physics
- ?a student with long hair [of the most arcane aspects of quantum mechanics you could ever possibly imagine]

## *Coordination*

- a student [of physics] and [of chemistry]
- a student [with long hair] and [with short arms]
- \*a student [of physics] and [with long hair]
- \*a student [with long hair] and [of physics]
- the students of chemistry and professors with short hair

## *Extrapolation*

- a student came to see me yesterday [with long hair]
- \*a student came to see me yesterday [of physics]
- ?a student came to see me yesterday [of the most arcane aspects of quantum mechanics you could ever possibly imagine]

## *Preposing/extraction*

- [What branch of physics] are you a student of?
- \*[What kind of hair] are you a student with?

## *Differences between complements and adjuncts*

- Semantic: # of properties being predicated
- Semantic: ambiguity
- Semantic: co-occurrence restrictions
- Syntactic: Recursivity/iterability
- Syntactic: Ordering
- Syntactic: Coordination
- Syntactic: Extraposition
- Syntactic: Preposing/extraction

## *Exercise II (1/2)*

Discuss the syntax of the bracketed Noun Phrases in the following sentences, presenting arguments to support your analysis:

- I met [*a specialist in fibreoptics from Paris*].
- [*The girl on the stage in jeans*] is a friend of mine.
- [*The journey from Paris to Rome on Sunday*] was tiring.
- [*The ban on belts with studs in the school*] has caused a lot of resentment.
- [*The girl at the disco last week*] rang me up yesterday.

## *Exercise II (2/2)*

Now discuss possible differences in structure between the bracketed NPs in the following

- She's [*another friend of Mary*].
- She's [*another friend of Mary's*].

(For the purposes of this exercise, simply assume that *of Mary* and *of Mary's* are PPs, and don't concern yourself with the internal structure of these PPs.)

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