

Today

L2 Syntax Lecture 5: Functional structure of simple clauses

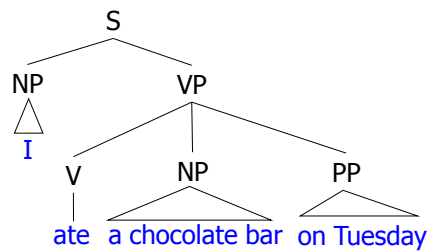
Robert Truswell

- Quick recap on X' theory
- Looking again at the structure of sentences
- Fitting in auxiliary verbs
- A new category, I
- Subject movement

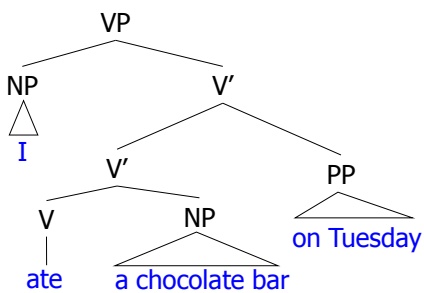
Today's reading

- Santorini & Kroch, ch.4
- <http://www.ling.upenn.edu/~beatrice/syntax-textbook/ch4.html>
- Links from WebCT and from the course website.

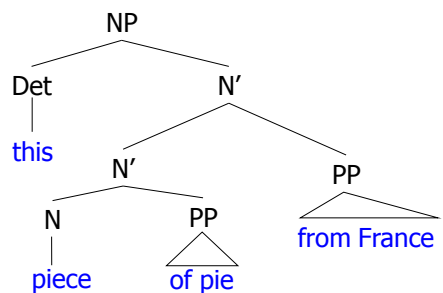
NP-VP parallels



NP-VP parallels

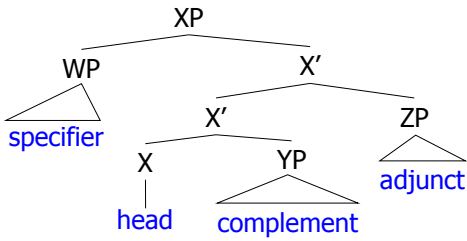


NP-VP parallels

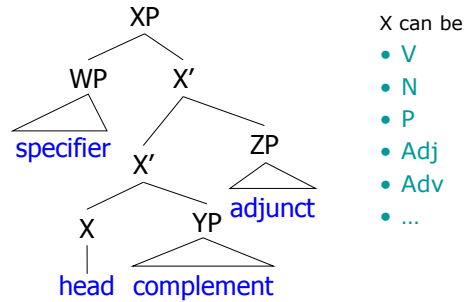


X' theory

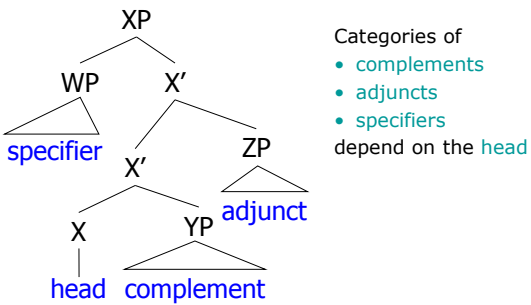
All phrases have the same structure



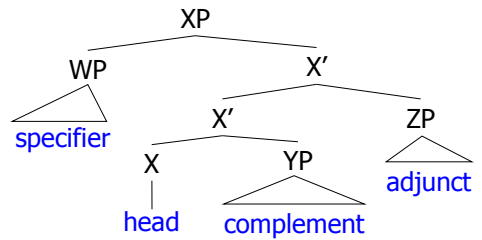
The idea behind X' theory



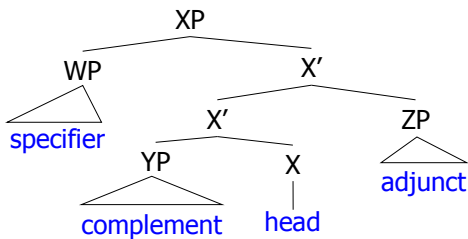
The idea behind X' theory



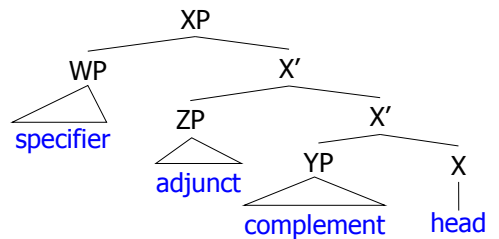
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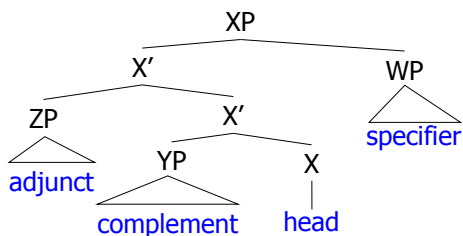
The idea behind X' theory



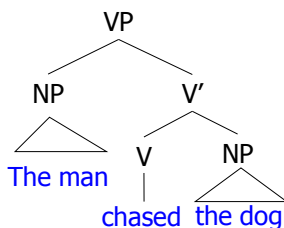
The idea behind X' theory



The idea behind X' theory



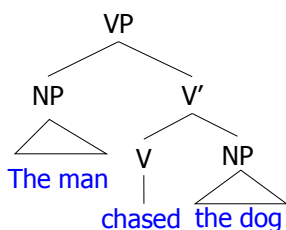
The structure of sentences



Constituency is correct:

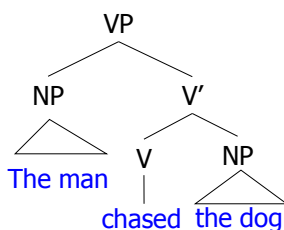
- What did the man do?
Chase the dog.
- The man chased the dog and stroked the cat
- The man chased the dog on Tuesday and I did so on Wednesday

The structure of sentences



- Endocentric
 - no unmotivated "S"
 - no lexicon-external phrase structure rules
- Verb assigns thematic roles to its arguments locally
 - AGENT to *the man*
 - THEME to *the dog*

The structure of sentences



- Subject agrees with verb locally
 - the man/*the men chases the dog
 - *the man/the men chase the dog
- Is this all we need?

Auxiliary verbs

Our tree covers:

(1) He chased the dog

What about:

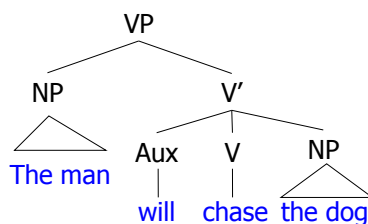
(2) He will chase the dog

(3) He did chase the dog

(2) and (3) have an extra word: an auxiliary

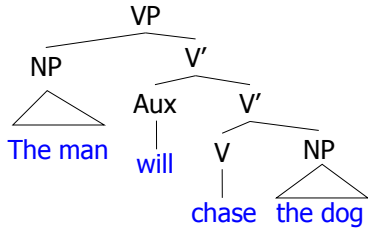
Three candidate trees

Can we just put an extra node inside VP?



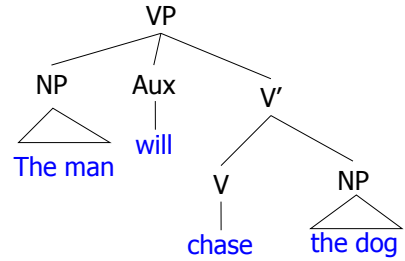
Three candidate trees

Can we just put an extra node inside VP?

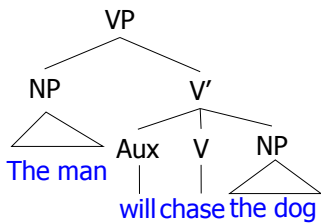


Three candidate trees

Can we just put an extra node inside VP?



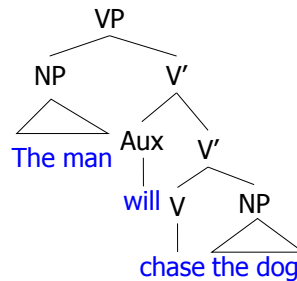
Testing a candidate tree



"chase the dog" is a constituent:

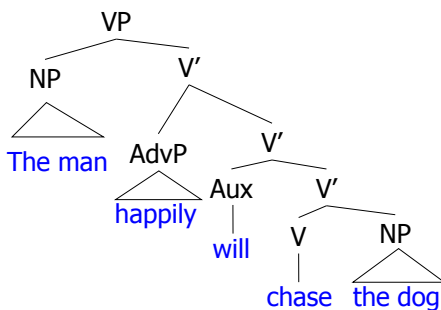
- The man will chase the dog and stroke the cat
- The man will chase the dog and I will do so too

Testing another candidate tree

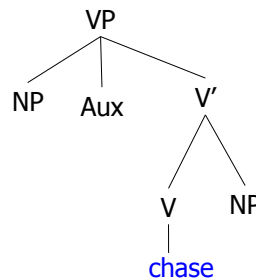


- Aux isn't optional
- (1) *The man chase the dog
- Other adjuncts appear in the wrong place
- (2) *The man happily will chase the dog

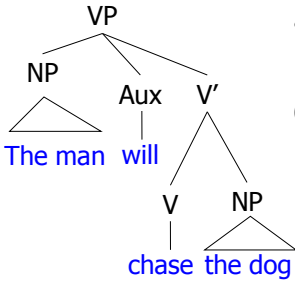
Testing another candidate tree



Testing a third candidate tree



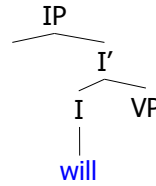
Testing a third candidate tree



- Aux isn't obligatory – shouldn't be in elementary tree
- (1) The man chased the dog

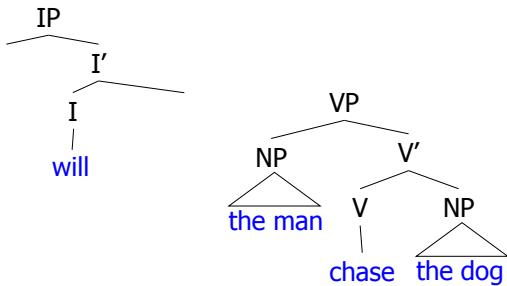
Towards a solution

Need some structure **above the VP**

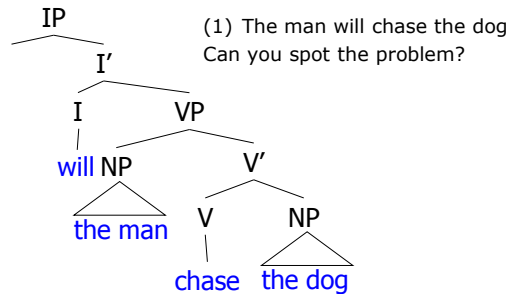


- Note:
- I stands for *Inflectional* – we'll see why soon.
 - I takes a *VP complement*
 - VP substitutes in to this structure

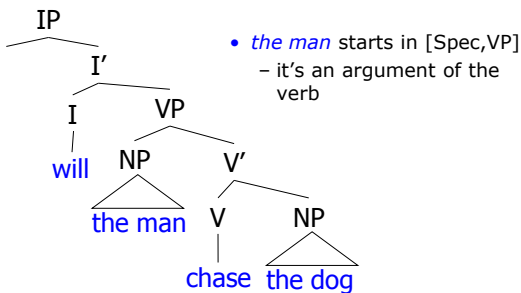
Towards a solution



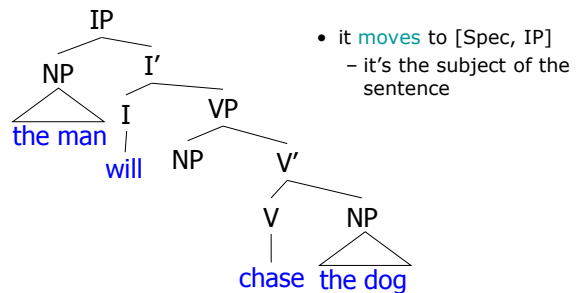
Towards a solution



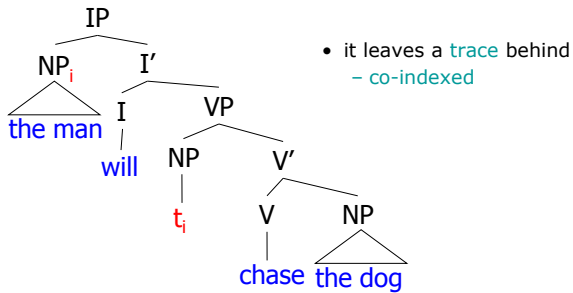
Towards a solution: subject movement



Towards a solution: subject movement



Towards a solution: subject movement



Subject movement explained

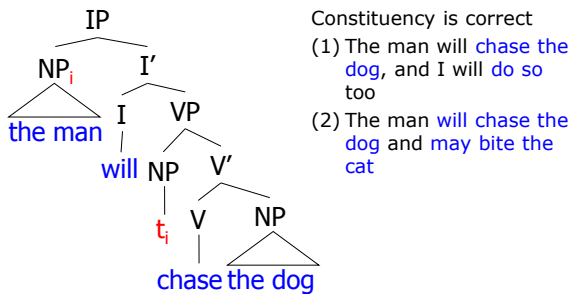
Movement is a way of representing how
one constituent can fulfil two functions

the man is both

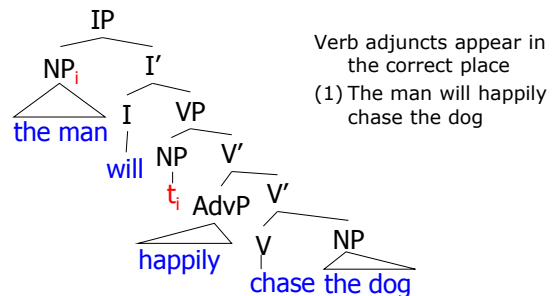
- an argument of the verb
- the subject of the sentence

Movement allows us to account for this
double function

Does it work?



Does it work?



Inflection

Our tree now covers

- (1) He will chase the dog
- (2) He did chase the dog

What about the old ones?

- (3) He chased the dog
- (4) He chases the dog

Inflection

- (1) He will chase the dog
- (2) He chased the dog

Two observations:

- (1) has auxiliary + uninflected verb
- (2) has no auxiliary + inflected verb

Inflection

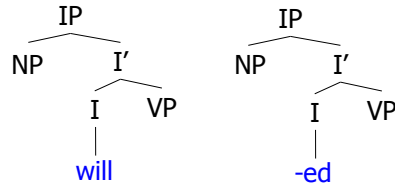
Two different ways of expressing tense:

- auxiliary
 - He **will** chase the dog
- inflection on verb
 - He chas**-ed** the dog

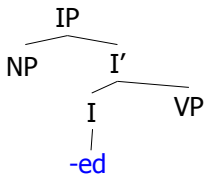
These are in **complementary distribution**: you see one or the other, not both

Inflection

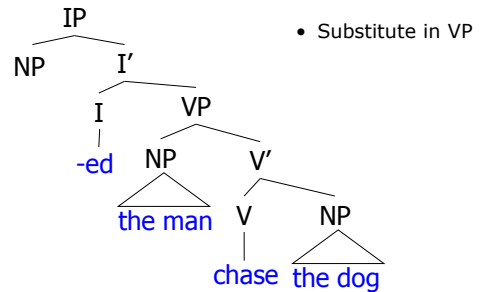
Natural explanation: they are both of category I (stands for Inflection)



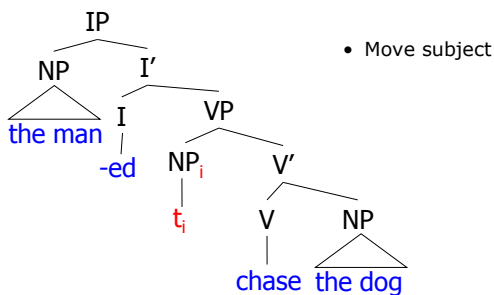
Building a sentence



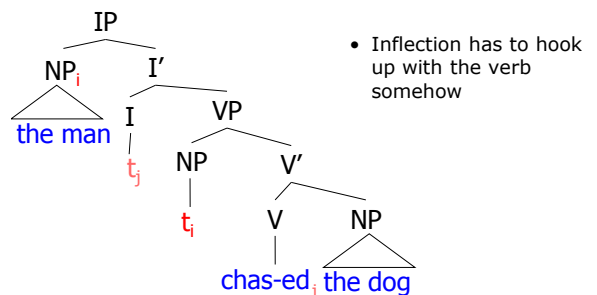
Building a sentence



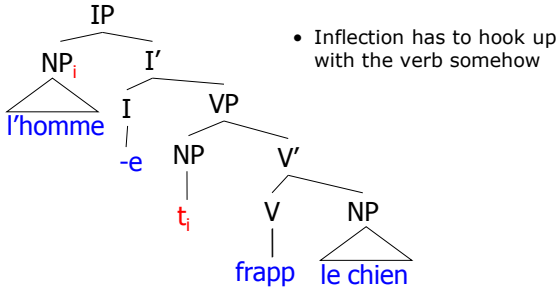
Building a sentence



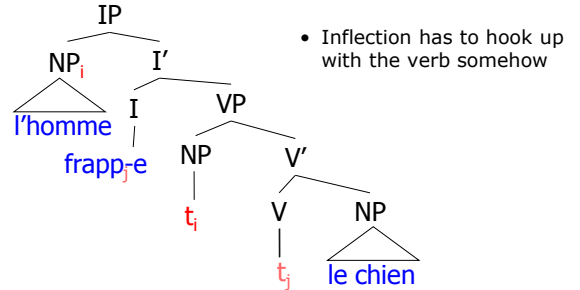
Tense lowering in English?



Verb movement in French?



Verb movement in French?

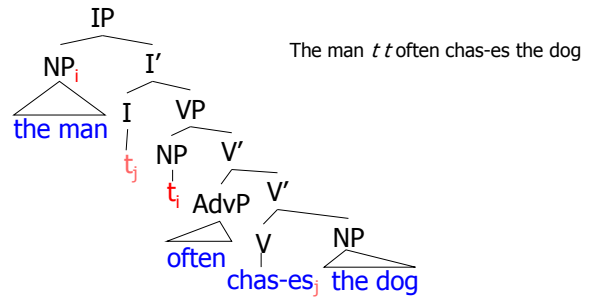


Tense lowering versus verb raising

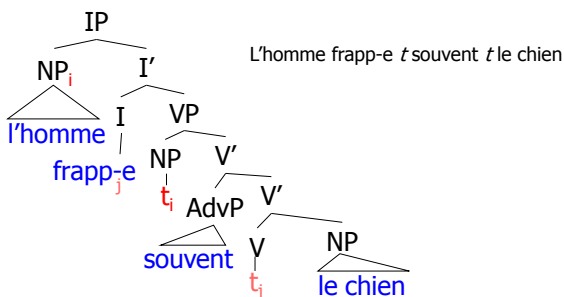
Crucial data: position of adverbs

- The man **often** chases the dog
- L'homme **frappe souvent** le chien

Tense lowering and adverbs



Verb raising and adverbs



Tense lowering versus verb raising

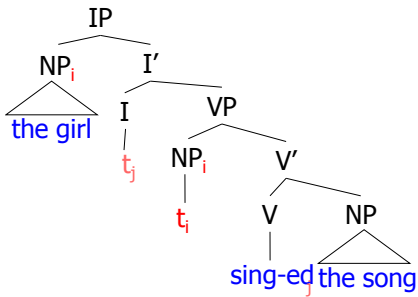
Crucial data: position of adverbs

- The man **often** chases the dog
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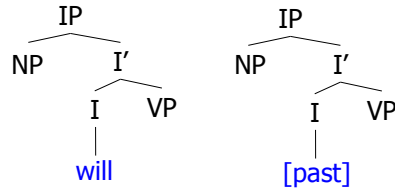
See Santorini & Kroch, Ch. 6, if you are interested in tense lowering versus verb raising.

We'll briefly see another example in the lecture on *wh*-questions (lecture 11).

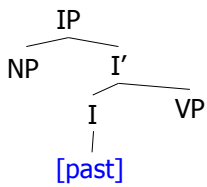
Irregular morphology



An alternative analysis

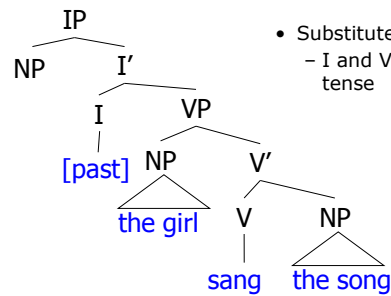


Building a sentence



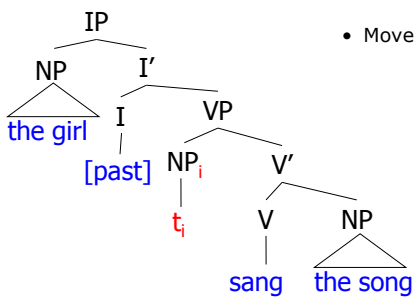
- [past] is the **silent past tense auxiliary**

Building a sentence



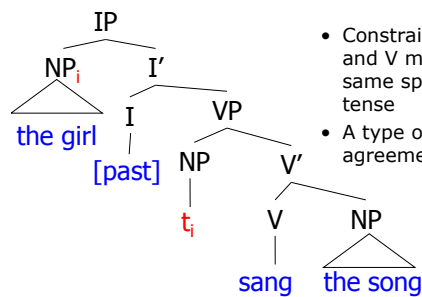
- Substitute in VP
– I and V must **agree** for tense

Building a sentence



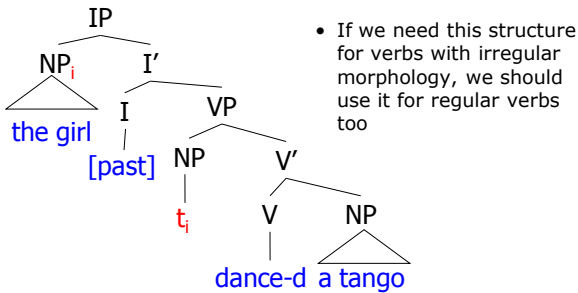
- Move subject

Building a sentence

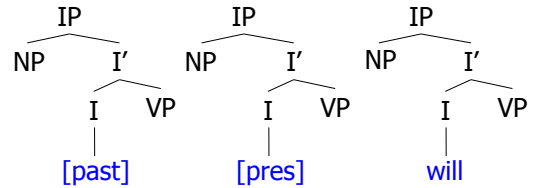


- Constraint that both I and V must carry the same specification for tense
- A type of head-head agreement relation

Building a sentence



Different I's



Disclaimer

- I have introduced two different operations
 - **Movement** relates a “gap” to a higher constituent.
 - **Agreement** relates a head to a lower constituent

Disclaimer

- I tried to motivate this by discussing irregular morphology and auxiliaries in English
 - Mary [past] sang a song
 - Mary will sing a song
- But French has both of these too
 - Je suis heureux
 - Je vais être heureux

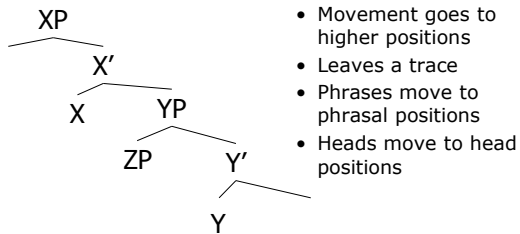
Disclaimer

- So we have good evidence from adverb distribution that the verb is in a different position in English and French
 - The man **often** **chases** the dog
 - L’homme **frappe** **souvent** le chien
- But we do not have good evidence that this is due to two different operations (movement and agreement)

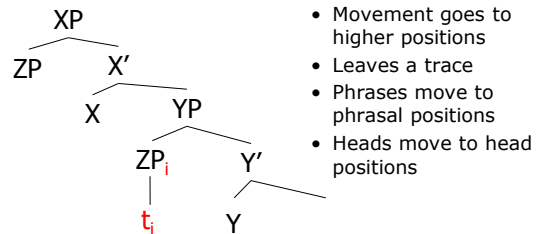
Disclaimer

- Please take this as an article of faith for this course
 - Movement takes a constituent to a higher position, leaving a trace
 - Agreement relates a higher head (which you may or may not hear) to a lower position
- We will see lots more movement. The syntax of agreement is not a prehonours topic.

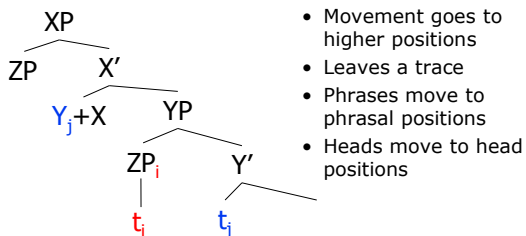
The basics of movement



The basics of movement



The basics of movement



Summary

- Auxiliaries and inflection for tense are in **complementary distribution**
- We can explain this by introducing a **functional head** – I
- I takes VP as a complement and NP as specifier
- Subject **moves** from [Spec, VP] to [Spec, IP]

Next

Friday's lecture:

- more functional heads

Subsequent lectures:

- why do things (e.g. subjects) move?