1 Where we are so far

(1) Assumptions about phrase structure:

→ sentences break down into constituents
→ constituents are called *phrases*
→ each phrase has a *head* which determines its main syntactic and semantic properties
→ we say that the head *projects* its phrase
→ we hypothesize that all structure is binary-branching, so the maximum number of subconstituents a given phrase may have is two; this follows if Merge is the operation which builds syntactic structure
→ semantic interpretation is a function of constituency, so the two interpretations of the string *Mary saw the man with the telescope* correspond to two distinct syntactic trees
→ constraints on syntax and semantics are stateable in terms of particular structural relationships, especially *specifier of, complement of, adjunct* and *c-command*

(1) Assumptions about items that appear in a sentence in a position that is structurally distant from their 'interpreted' position

→ elements are base-generated in their 'interpreted' position
→ if elements appear in a position distant from their 'interpreted' position, they have *moved* there
→ The moved element and the 'trace' left in its interpreted position form a linked object called a *chain* which ensures that the moved element will be able to be interpreted in its base position

(1) Kinds of movement

→ we have looked in a bit of detail at *head-movement* and also
→ "*A-bar*" or "*wh*"*-movement*
→ we assume that movement is triggered by *features*
→ A-bar movement is triggered by features like [+wh], [+Top]
→ head-movement is also triggered by features like [+Int], [+finite], [+Imp], [+Top]
→ movement serves to *check* features of the moved item <u>against the head of the position to which it moves</u> (more about this *specifier-head* checking soon); unless these features are checked, they will cause a derivation to fail (hence, e.g. **Who John has seen*? in a language like English: the [+Q] features on the auxiliary have not been checked against the [+Q] features on the complementizer, so the sentence is ungrammatical.)

(1) Restrictions on movement

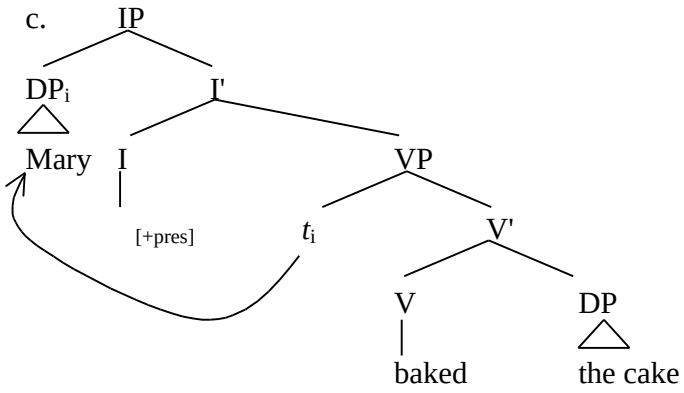
→ we have proposed that movement in general is subject to the *Structure Preservation Constraint*: heads move to head positions; phrases move to phrasal positions

→ we have proposed that head-movement must be to the 'next closest' or *minimally c-commanding* head — it can't 'skip' heads. This is known as the *Head Movement Constraint.*
→ we haven't yet seen restrictions on A-bar movement; we will later.

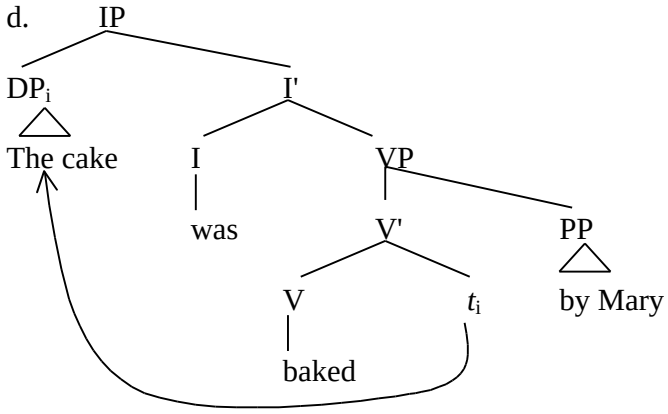
(1) An undiscussed kind of movement: *A*-movement
(also called *NP* or *DP* movement):

a. Mary baked the cake — bake [<u>Agent</u>, Patient)
b. The cake was baked by Mary — baked [Patient]

c.



d.



→ This structure assumes that in the passive form, verbs simply have no external arguments. That is, passive doesn't create *baked* [<u>Theme</u>]; rather, it created *baked* [Theme].

(1) Another reason to think this: What's the theta-grid for *consider*, below?
a. Wilma considers that Fred is foolish.
b. Wilma considers Fred to be foolish.

→ But: (b) can be passivized:
c. Fred was considered to be foolish

→ So, while passive does operate to suppress the external argument of the verb, it does *not* operate to promote the internal argument of the verb — since it can apply to verbs which don't *have* a DP internal argument.

→ Draw the trees for 7b. and c.

In the Minimalist program, we assume that things move to check features. What kind of feature is triggering the movement of a DP in the passive?

(1) a. I addressed them.
1sg.NOM 3sg.ACC
b. They were addressed by me.
3sg.NOM

(and of course much nicer, clearer cases from languages which mark case not only on pronouns but also on full DPs, in this class, for instance, we have speakers of Japanese and Slovak who could show us a lot of nice facts like this. I'll try and make up a Japanese sentence to show the effect — please correct me if I get it wrong!).

(1) a. Hanako-ga edamame-o tabeta
Hanako-NOM soybeans-ACC ate
"Hanako ate soybeans"

b. Edamame-ga (Hanako-ni) tabe-rare-ta
Soybeans-ACC (Hanako-DAT) ate-PASS-PAST
"Soybeans were eaten (by Hanako)

→ Case-marking (accusative and nominative) corresponds to *structural position*, not to *semantic interpretation* — i.e. it goes with positions, not θ-roles.

→ we can see this by looking at *consider* again:

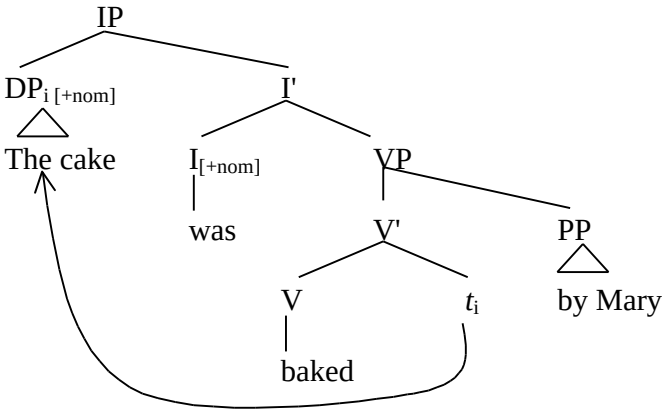
(1) a. I considered that he was foolish
b. I considered him to be foolish.

→ *him* gets accusative case — presumably from *consider* — in 10b, but it's not getting a theta-role from *consider*.

→ Accusative and nominative are therefore called *structural case* or *abstract case*

→ So: movement happens to 'check' Case features. We could annotate our trees above like this:

(1)



→ unchecked features cause the derivation to crash
→ hence *was baked the cake by Mary* is ungrammatical
→ This used to be called the Case Filter: all DPs need Case. Now it's subsumed under the more general requirement that all features need to be checked. DPs have Case features that, like all features, need to be checked.

→ Nominative case is associated with finite Infl (in English). Compare, again:

(1) a. Mary considered that he was intelligent.
b. Mary considered him to be intelligent.

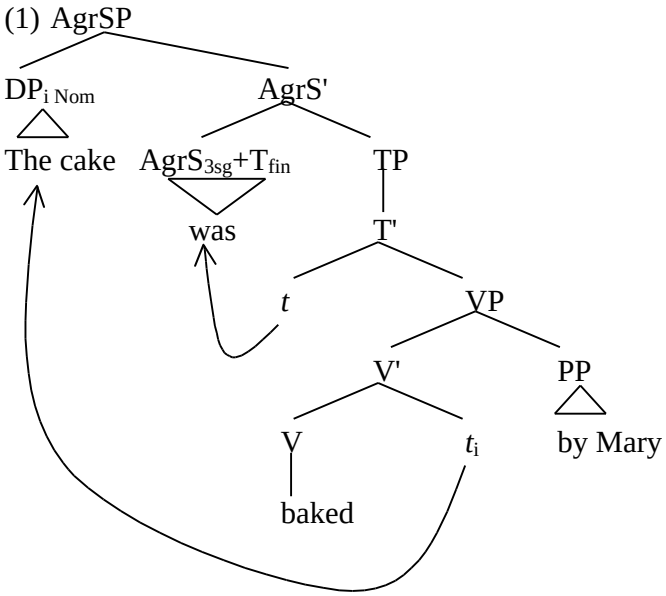
→ As Roberts notes, only nominative arguments — subjects — trigger agreement with finite Infl, cross-linguistically.

(1) a. He has/*have seen them
b. They have/*has seen him
c. They were/*was seen by him.
d. He was/*were seen by them.

→ nominative case and agreement are two sides of the same coin: both are morphological reflexes of the same checking action between the subject and finite Infl.

→ For a while (1993-1996), people separated them out. Infl was divided into AgrSP (which checked Case and agreement) and TenseP, which contained the Tense features. Roberts 1997 book still does this. The tree would look like this

(1) AgrSP



→ There are still good arguments for at least two functional projections above the subject position. We'll see some next week, when we read that other paper by McCloskey, Subjects and Subject Positions in Irish.

→ We won't split our Infl officially in this course. But you should be aware of the proposal. And from now on, I'm going to use TP rather than IP.

→ So: nominative case is available in subject position: daughter of finite Infl. It is checked by virtue of being in a spec-head relationship with finite Infl.

→ What about accusative case?

→ it seems to be an idiosyncratic property of the verb:

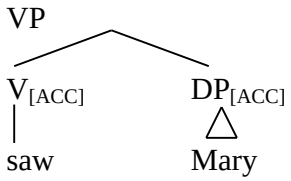
(1) a. I talked to him.
b. *I talked him.
c. *I addressed to him.
d. I addressed him.

(1) a. I considered that she was intelligent
b. I considered her to be intelligent
c. I said that she was intelligent
d. *I said her to be intelligent

→ *address* and *consider* have accusative case to assign; *talk* and *say* don't.

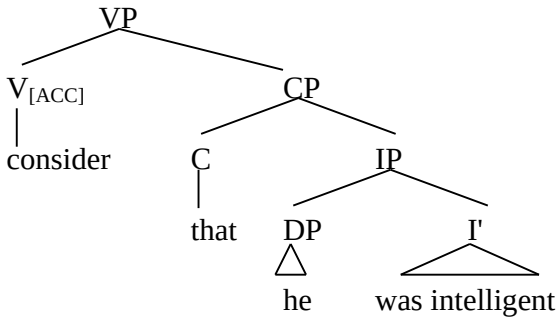
→ The idea in GB theory was that accusative case was assigned under *government*, which basically meant *sisterhood*: A governed B if A c-commanded B and no Barrier intervened between A and B.

(1)



→ V governs DP here, so it can assign accusative case to it

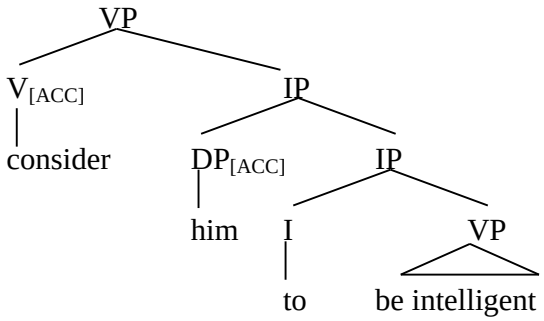
(17)



→ Here, CP is a *Barrier*, so V can't assign case to DP, even though it c-commands it.

→ The trick, in GB was to assume that -finite IP was *not* a Barrier so:

(1)



→ so here, V c-commands DP and no Barrier intervenes, so V governs DP and can assign its accusative case to it.

(1) Spec-head checking in Minimalism vs. Government in GB theory

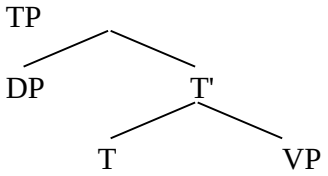
GB: Tricks with government to get the spec-head relation to be a case of government

a. C-command: A c-commands B iff A does not dominate B and every category dominating A dominates B

b. M-command: A m-commands B if A does not dominate B and some projection of A dominates B

→ If we assume *category* = *node*, these two definitions mean that something can *m-command* a node that it doesn't c-command, and vice-versa:

(1)



(1) C-command relations between T and DP:

a. Does T dominate DP? _____
b. Does every node dominating T dominate DP? _____
c. Does T c-command DP? _____

e. Does DP dominate T? _____
f. Does every node dominating DP dominate T? _____
g. Does DP c-command T? _____

→ DP c-commands T
→ T does <u>not</u> c-command DP

→ BUT: consider the definition of m-command ('maximal'-command): A m-commands B if A does not dominate B and <u>some projection of A</u> dominates B.

→ What's the m-command relationship between T and DP?

(1) M-command relations between T and DP

a. Does T dominate DP? _____
b. Does some projection of T dominate DP? _____
c. Does T m-command DP? _____

e. Does DP dominate T? _____
f. Does some projection of DP dominate T? _____
g. Does DP m-command T? _____

→ T m-commands DP
→ DP does *not* m-command T

→ For a long time, in the late eighties, people tried to get *all* Case, including nominative, to be assigned under government. So they used m-command definitions of government, not c-command definitions, since m-command meant that T would govern its subject DP.

→ this led to all kinds of nastiness, and sparked the beginnings of the Minimalist Program. Chomsky (and lots of others) thought: there's got to be a better way!

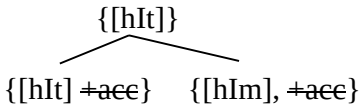
→ there is, luckily!

(1) Modern Minimalism, Merge and Feature Checking

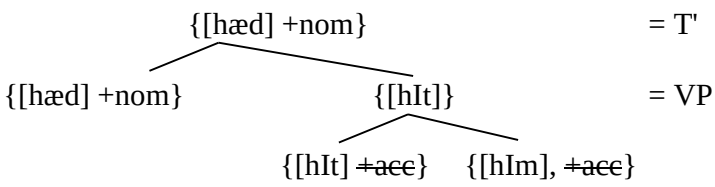
a. Remember that in modern Minimalism, the whole feature bundle associated with a category projects, not just its category label.
b. Imagine that there's a rule (the *Earliness Principle*) that says: Features are checked as soon as a category with matching features Merges with them
c. now we can see how complement and specifier positions can be similar:

(1) a. we have two items:
Verb: {[hIt], +acc}
DP: {[hIm], +acc}

b. we Merge them, checking and erasing the [+acc] feature as we do so

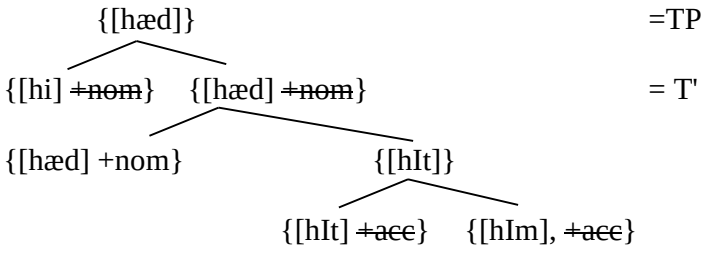


c. Now we take a third item, a +finite, perfective Tense, with nominative case to assign, and merge it with our constructed VP:



→ <u>note</u>: because the VP has no +nom feature, the nom case on the T won't be checked, and will be projected to the T' level with all the other features of the T

d. Now we take a fourth item — a +nom DP, as it happens, and Merge it with our constructed T'



→ *now* the nominative case of T will be happily checked, and by the same mechanism that checked the accusative case on the object – under Merge.

→ If nominative and accusative case are simply morphological markings associated with object position and subject position, what do we want to say about languages that don't have such morphological marking? (e.g. English DPs, Chinese, … many languages). Do we want to say they don't have subjects and objects?

→ of course not; most languages, Caseless or not, for example, have passive operations. Abstract Case is a property of the subject and object structural positions cross-linguistically. Some languages have morphological case, some don't.

→ in the same way, many languages have obvious morphological realizations of present Tense, for example, but others don't: even the ones that don't realize Tense with morphological marking, however, clearly have the *feature* [+present]: it's part of the syntax and semantics that doesn't show up in the morphology. Abstract Case is a similar hypothesis — except it's not a part of the semantics (at least in its original incarnation). Abstract Case is straight syntax.