

TOPICS IN SYNTACTIC AGREEMENT

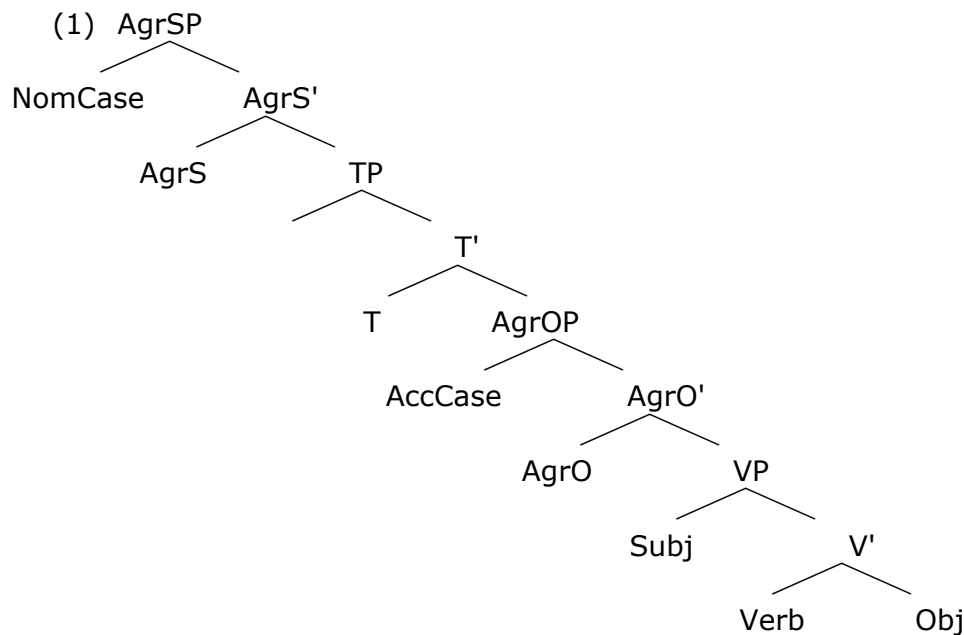
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1. THE MINIMALIST PROGRAM (CHOMSKY 1993, 1995)

In the early MP the structure assumed is the one we know:



FEATURE CHECKING

Basic ideas:

→ A derivation must converge at both interface levels, i.e. it must meet the conditions holding at PF and LF (it must be readable at PF and LF).

→ Features at Spell-Out must all be interpretable.

→ Features that remain unchecked at (one of) the interfaces lead the derivation to crash because they are uninterpretable.

→ Uninterpretable features DISAPPEAR after checking (i.e. uninterpretable ϕ -features must be checked against matching (interpretable or uninterpretable) ϕ -features in order to disappear from the derivation BEFORE the interface levels are reached)

(2) PRINCIPLE OF FULL INTERPRETATION (FI)

A derivation **converges** only if the features that arrive at the interface levels (PF and LF) are interpretable at that level of representation

Thus:

→ interpretable formal features survive to LF and PF.

→ uninterpretable formal features must be eliminated by LF and PF, otherwise the derivation will **crash**.

PARAMETRIC DIFFERENCE in the strength of ϕ -features:

STRONG FEATURES are visible at PF and MUST be checked before Spell-Out

WEAK FEATURES are invisible at PF and can be checked after Spell-Out

Example: the verb in French and Italian has a strong V-feature, which must be checked against T OVERTLY, before Spell-Out (V-to-T)

The verb in English has a weak V-feature, hence it moves to T after spell-out (why does it move to T (AgrS)? For agreement with the subject)

1.1. THE LEXICON

X' structure no longer exists.

Lexical items enter the derivation from the Lexicon **fully inflected** [either with morphology already in place or as feature bundles to which morphological content will be added afterwards-DM]

In any case: no more movement and incorporation of morphemes in the syntax

1.2. FEATURE CHECKING

Features must MATCH.

Match requires feature **identity** (i.e. features that have the same attribute and the same value).

Uninterpretable features checking: checked uninterpretable features disappear.

Q: Are ϕ -features interpretable or uninterpretable?

They are both, depending on which lexical item they appear.

Ex: *ragazza* has the features feminine and singular

Person: feminine

Number: singular

These features are always INTERPRETABLE on Nouns
Whenever *ragazza* reaches the interface with PF or LF, *ragazza* will always be "read" as feminine singular. Its specification does not depend on the other elements in the clause. It will always be interpretable

Now take

(3) *bella ragazza*

bella will take its ending depending on the N it agrees with (intuitive agreement)

bella will have an uninterpretable feminine gender feature

(4) *bella* **AGREE** *ragazza*

Match of identical features: the uninterpretable feature deletes (in this case it survives for phonology but not for LF).

✓ The derivation converges.

(5) *bello* **AGREE** *ragazza*

NO MATCH: the uninterpretable feature cannot check its value against the interpretable feature on N.

× the derivation CRASHES.

[It is a little more complex than this, especially re: Case]

LI featuring uninterpretable features cannot be sent directly to Spell-Out (they can, but then the derivation crashes).

Gender and Number are thus interpretable on Nouns but uninterpretable on adjectives and verbs. Case is uninterpretable on both N and T/V (at this stage)

What else do we need for agreement?

Merge is less expensive than Move, so Movement is **LAST RESORT**:

(6) LAST RESORT

Move α to $[\text{Spec}, \beta]$ only if some property of α requires it.

NB: it is α which needs to move.

Also:

(7) GREED

Movement of α to β must be for the satisfaction of formal requirements of α

Why can't the verb move overtly in English (given that it will have to Spec-head Agree with the Subject in TP)?

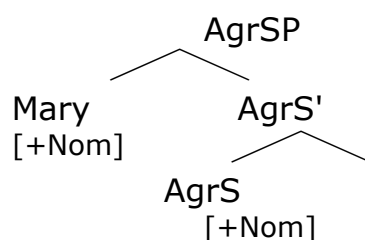
(8) PROCRASTINATE

Delay movement whenever possible

[Like in GB, an argument moves to get Case]
[Case features are now checked]

Case: Checking of two uninterpretable features for every movement

(9) Mary reads



Redundancy of uninterpretable features.

2. MP VERSION 2. CHOMSKY (1995, CH. 4)

Reverse point of view:

(10) ATTRACT

K attracts F if F is the closest feature that can enter into a checking relation with a sublabel of K (Chomsky 1995:297).

NB: Movement takes place not because of α 's needs but because of β 's needs

V-to-T is due to a STRONG V feature on T attracting the verb on T. Subject in Spec, TP is triggered by a strong D-feature on T.

So we don't move anymore to check Case but to check the uninterpretable strong feature on the attractor.

CASE IS A FREE RIDER. Nominative just happens to be checked **when the subject is in Spec, TP**

2.1. WHY SPEC, TP AND NOT AGR?

(11) 'We have considered four functional categories: T, C, D, and Agr. The first three have Interpretable features providing "instructions" at either or both interface levels. Agr does not; it consists of -Interpretable formal features only. We therefore have fairly direct evidence from interface relations about T, C, and D, but not Agr. Unlike the other functional categories, Agr is present only for theory-internal reasons' (Chomsky 1995)

We can simply add a strong D feature on v to obtain the AgrO effect and a strong D feature on T to obtain the AgrS effect.

QUESTION: What about Pollock's observations on different verbal landing sites? What about other allegedly Agr-triggered movements such as Object Shift?

SOLUTION: We can have Multiple Specifiers!

† **R.I.P.** So Agr dies in Chomsky (1995)

2.2. SUBJECT-VERB AGREEMENT IN LATE EARLY MP

What happens to Subject-verb agreement in French/Italian?

→ The subject is attracted to Spec, TP by the **strong D** feature.

→ [u]Nominative on the subject is checked against [u]Nom on T as a free rider and deleted.

→ ϕ on T are checked against [ϕ] on the subject as free riders

OK!

But what about English?

We DO see inflectional features on the verb, but the verb does not raise to T.

How is the verb going to show inflection if it's not in T and it is T that agrees with the subject?

Example:

(12) *We build airplanes*

(13) '[...] The Case feature of *we* is checked by T as a free rider, as are the phi-features, after covert raising of the verb establishes the required checking relation. F could also be Case which would mean that the EPP is satisfied by the categorial feature as a free rider. But F could not be a phi-feature in this case, because the verb raises only covertly so that the checking relation between phi-features is only established later; Last Resort would be violated if phi-features of *we* were accessed in overt raising. The Case feature of *we* is -Interpretable, therefore erased when checked. The phi-features, however, are interpretable, hence accessible to further operations, as is the categorial feature D.'

If ϕ -features are morphologically marked on the verb and we don't have incorporation of the Agr sort, how can the verb end up with inflection?

Recall: the verb is already merged with inflectional features in the lexicon

[but then what is T doing?]

3. AGREE

MINIMALIST INQUIRIES

Chomsky (1998/2000): the STRONG MINIMALIST THESIS

(14) Language is an optimal solution to legibility conditions

(15) 'Suppose we understood external systems well enough to have clear ideas about the legibility conditions they impose. Then the task at hand would be fairly straightforward at least to formulate: construct an optimal device to satisfy these conditions, and see how well it satisfies other empirical conditions. If all such efforts fail, then add "imperfections" as required.'

(Chomsky 1998: 10)

Recall: we are in an "attractor"-driven system
Neither Case nor ϕ -feature checking trigger movement

So is movement really necessary for agreement? No.

For subject-T agreement:

(16) 'The new element T has uninterpretable features of two types: its ϕ -set and its selectional feature EPP. Like other selectional features, EPP seeks an XP to merge with the category it heads. The ϕ -set we can think of as a *probe* that seeks a *goal*, namely, "matching" features that establish agreement. The relation of the probe of T to its goal is the T-*associate* relation.' [Chomsky, MI]

What is new?

→ Feature bundles are probes (so, no longer fully fledged lexical items; features are more and more independent)

→ *Probe*, *Goal*, *associate* are new terms (but they correspond to old concepts)

3.1. AGREE

The erasure of uninterpretable features of probe and goal is the operation Agree.

Agreement comes in two steps:

1. Match
2. Agree (deletion)

(17) 'The simplest assumptions for the probe-goal system are :

- (I) matching is feature identity
- (II) D(P) is the sister of P

(III) locality reduces to "closest c-command"

Match is feature identity: Case cannot be checked by Agree

So what is Case?

Chomsky: 'it is structural Case that enables the closest goal G to select P(G) to satisfy the EPP by Merge.

Case is signalling that this is the right element to be merged in the Spec (to satisfy the EPP).

It is a completely ancillary notion.

MI again:

(18) 'uninterpretable features render the goal *active*, able to implement an operation: to select a phrase for Merge (pied-piping) or to delete the probe. The operations Agree and Move require a goal which is both local and active'
[MI]

Case is hence UNINTERPRETABLE on the subject. It is there to make the subject visible for Match. But it cannot delete after ϕ -agree because it does not Match!

(19) '*Manifestation* of structural Case depends on interpretable features of the probe: finite T (nominative), v (accusative), control T (null)

So: Case is an uninterpretable feature on the GOAL which serves to make it visible to the Probe. Case is a UNIQUE feature (so, there is no such thing as Nom or Acc) and its value depends on the head with which the DP is merged.

Agree can take place LONG DISTANCE. The DP subject does not need to move to the spec, TP. It must only be in the checking domain of the Probe T.

Case/Movement/Agree are completely independent now.

QUESTION: what about Pollock's observations? What about Kayne's observations?

Feature deletion on the probe is a "one fell swoop". Features cannot selectively delete.

AND

Only a ϕ -complete probe can delete the feature that activates the matching Goal (i.e. Case).

3.1.1. Participial Agree

pp is α (the probe) [defective ϕ -set, lacking person]
G is the closest matching goal (the DP object)

P(G) MAY be attracted to [spec, α], deleting the probe α (\rightarrow participial agreement)
BUT the operation will not delete structural Case, which can move on to Spec, T
(pied-piping!) deleting the probe of T and the case of DP.

What about the correlation between movement and agreement?

4. DERIVATION BY PHASE (CHOMSKY 1999, 2001)

Uninterpretable features serve to implement Agree and Move.

FEATURES

(i) ϕ -features, selecting a target [ϕ -features on v, T (optionally C)]

(ii) EPP features

(iii) Features that select the category β that is moved [Case]

Uninterpretable features render both the Probe and the Goal active for Matching
(and Agree)

Intervention effect (also with an inactive element)

New concepts:

\rightarrow Feature VALUATION

Uninterpretable features are also UNVALUED; Agree VALUES them. There is not just a need to check the uninterpretable features, but also a need to ACQUIRE a value

\rightarrow One value passes from one feature bundle to another (we go back to agreement as "traditionally" conceived: a value is 'copied' from a head to all agreeing elements.)

\rightarrow Match is NONDISTINCTNESS (HENCE, NOT IDENTITY): same attribute, same value OR same attribute different value.

What happened to categorial features?

They no longer exist.

What is the EPP probe? Person

What makes the DP visible for EPP (person)? Case

4.1. PHASES

What is a phase?

- Phases are syntactic objects which are derived by choice of a subarray LA_i .
- CPs and vPs constitute phases (TPs do not)

- vPs constitute phases only when they are transitive, not when they are passive or unaccusative

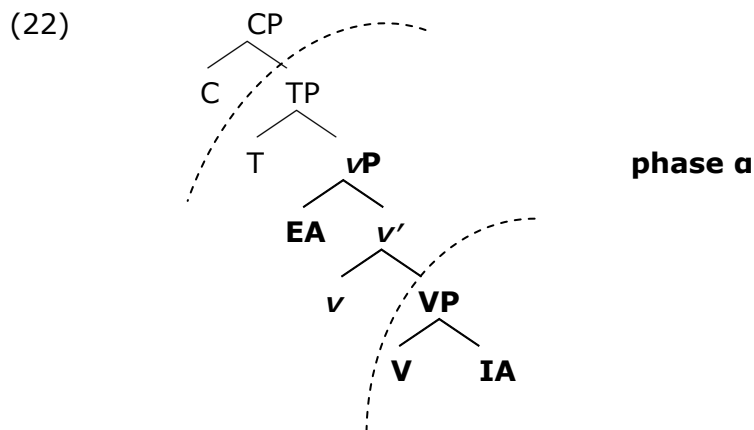
THE PIC (PHASE IMPENETRABILITY CONDITION) [PIC1]

(20) In a phase α with head H, the domain of H is not accessible to operations outside α ; only H and its edge are accessible to such operations.
[Chomsky (2000:108)]

[this is the 1st version of the PIC. The 2nd version is:

- (21) a. The domain of H is not accessible to operations at ZP, but only H and its edge.
b. [ZP Z... [HP α [H YP]]]
c. Z and H are (strong) phase heads

THE PIC (1)



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