A Short Primer on Syntax after the 1980s

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The flutter
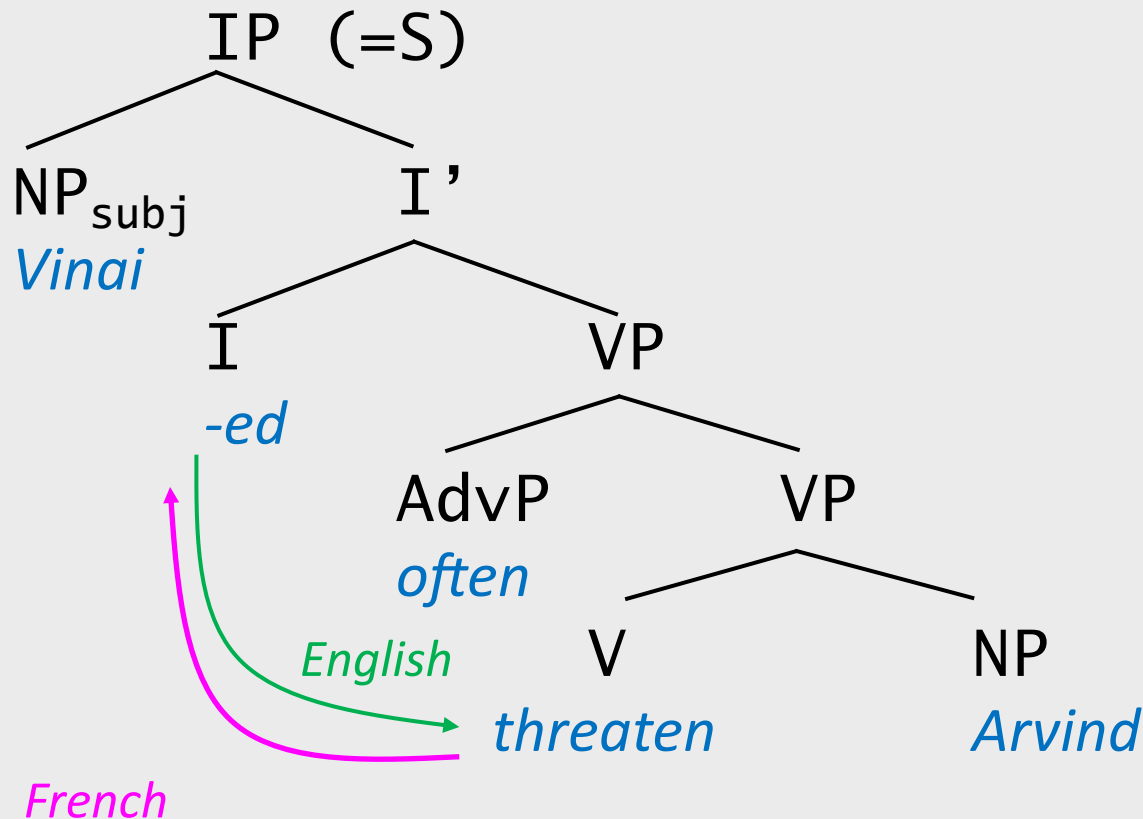
The art of science is reduction of

''complex visibles to simple invisibles''

 (e.g. atoms)

- Jean Baptiste Perrin
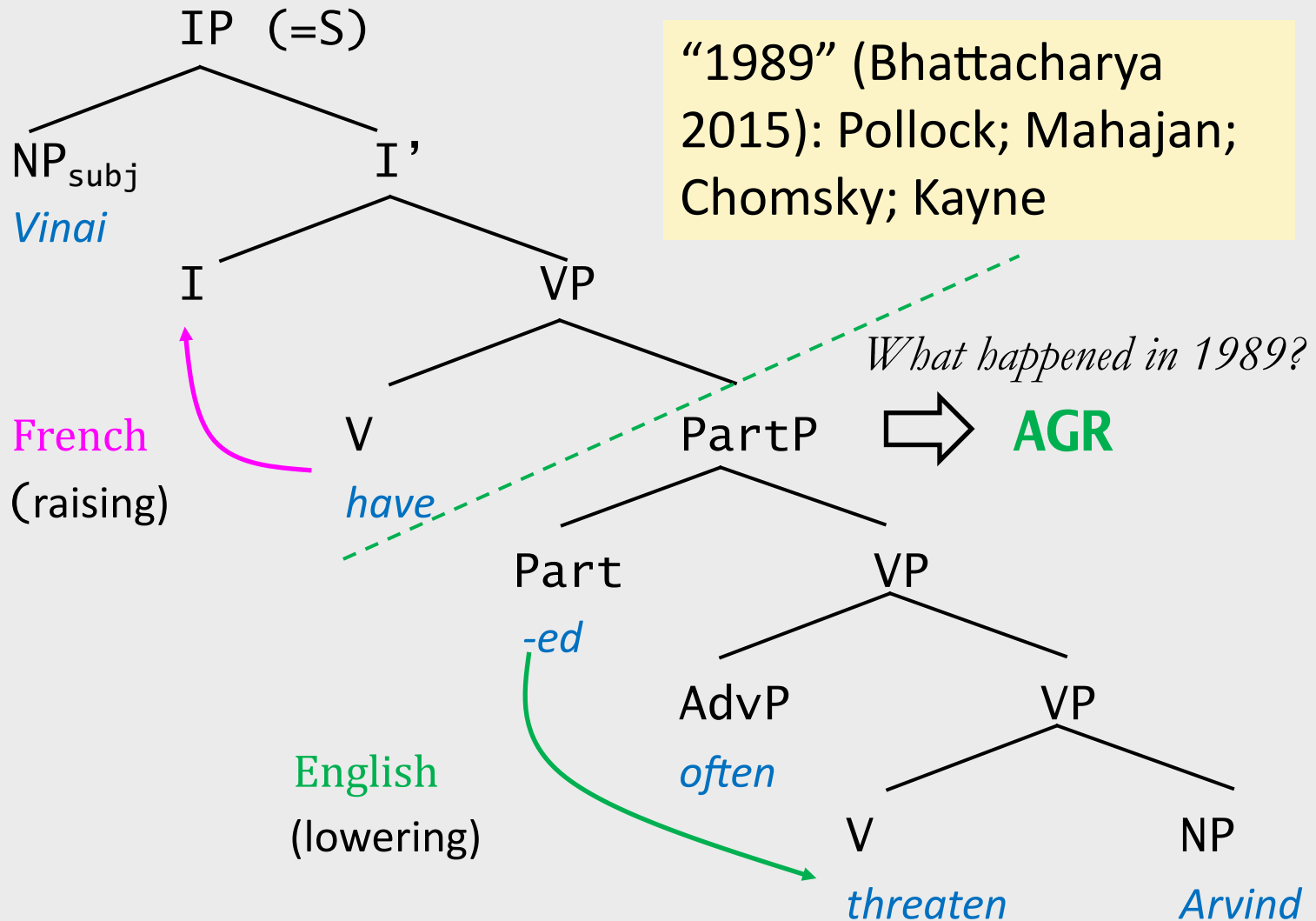
(Nobel laureate in physics, 1926)

After 1980s

Pollock, Jean-Yves. 1989. <mark>Verb movement</mark>, Universal Grammar and the structure of IP, *Linguistic Inquiry* **20**: 365- 424.

IP (=S)

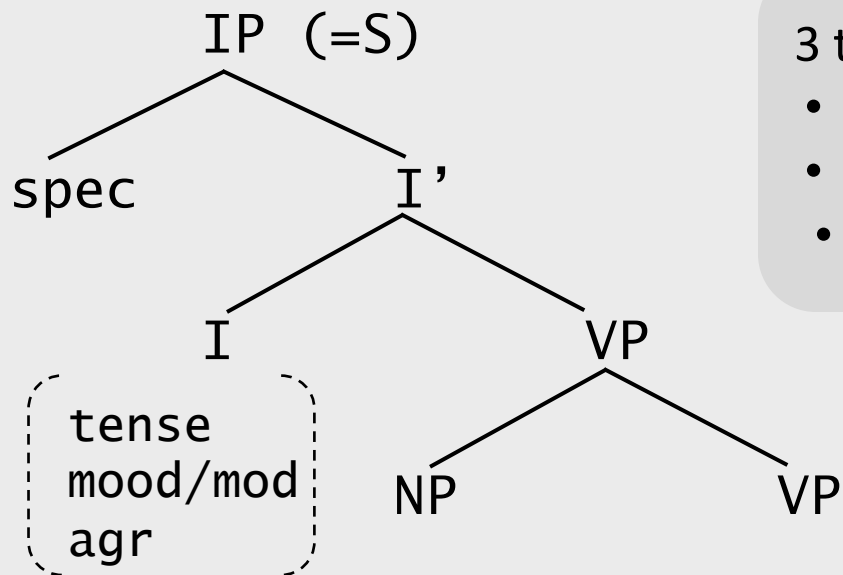NP$_{subj}$ I'

Vinai

I   VP

-ed

AdvP   VP

often

English

V   NP

threaten   *Arvind*

French

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Verb Movement in English

IP (=S)

NP$_{subj}$ — *Vinai*

I'

I

French (raising)

V — *have*

VP

PartP

Part — *-ed*

English (lowering)

VP

AdvP — *often*

VP

V — *threaten*

NP — *Arvind*

"1989" (Bhattacharya 2015): Pollock; Mahajan; Chomsky; Kayne

What happened in 1989? ⟹ **AGR**

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… Structure of the IP …

IP (=S)

spec   I'

          I   VP

```
tense
mood/mod        NP          VP
agr
```

3 things:
- Structural
- Historical evidence
- UG (parameter)

b.

```
        TP
    Spec    T'
          T     AgrP
             Spec    Agr'
                  Agr    VP
```
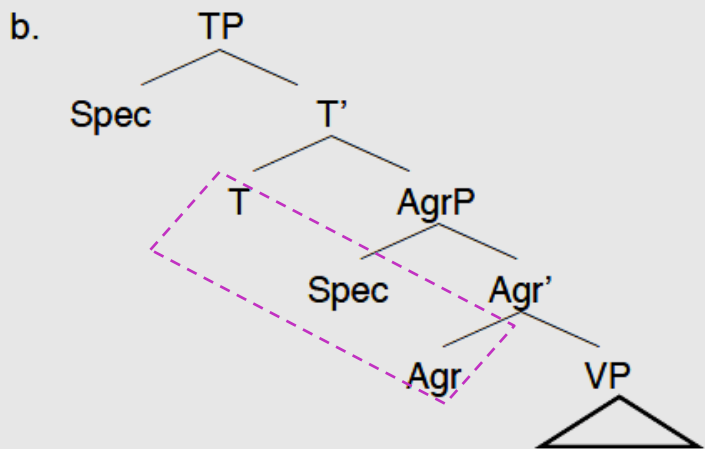
The structure in b. has more places, Case and agreement both are now established via the Agr head.

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What is Agreement?

- Agreement is a quintessentially syntactic phenomenon

- It expresses a relation that cannot be otherwise expressed in the morphology of the language

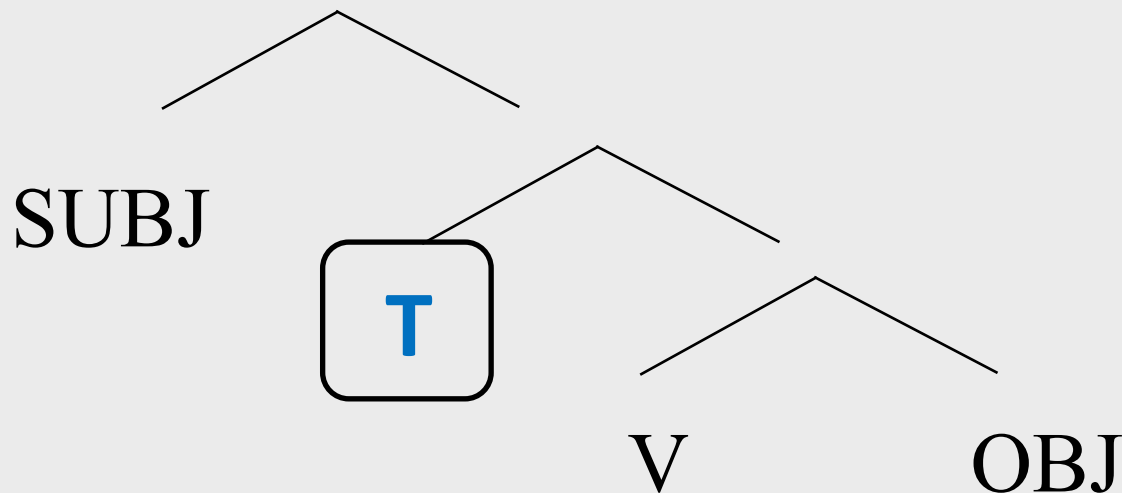 Rani   like-**s**   Momos.   (T invisible)

  Rani   warm-**ed**   the Momos. (P, Num invisible)

- (In)visible categories Tns/Agr combine with V:

  - Rani doe-**s** not like dal.

  - Di-**d** Rani warm the Momos?

A Brief History of the Clause Structure

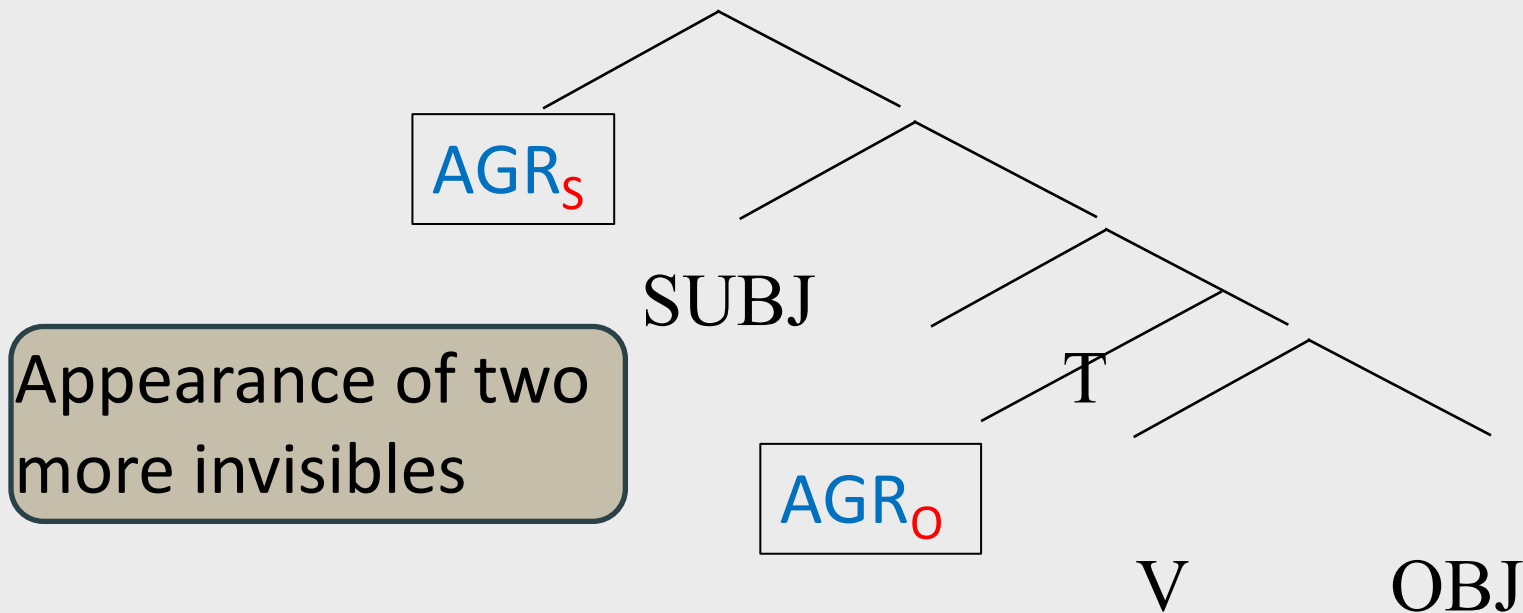Roughly, the following is the structure of a clause for an SVO language:

SUBJ

T

V   OBJ

Appearance of the first invisible

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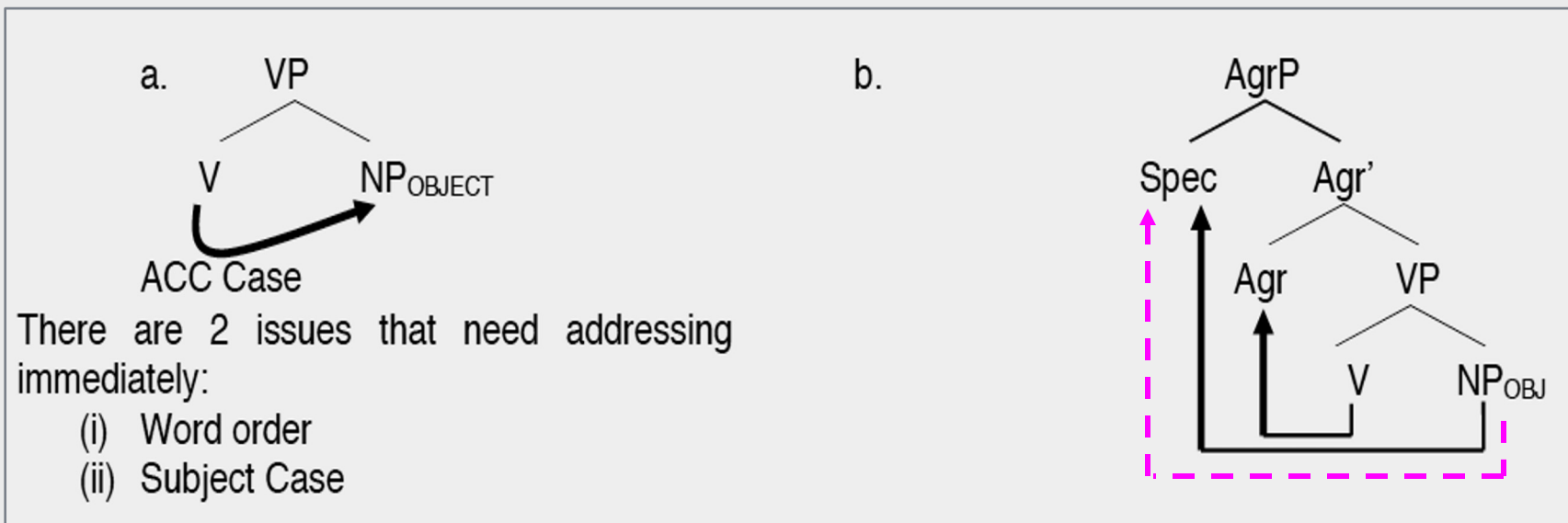
Appearance of Agreement

- For various reasons, Agreement was thought to deserve a place in this diagram and a new head called AGR soon found a place in the tree in its own right:

AGR$_S$

SUBJ

Appearance of two more invisibles

AGR$_O$

T

V   OBJ

Enter Minimalism (via Economy)

Compare case in GB and Minimalism:

a. VP
V   NP_{OBJECT}
ACC Case

There are 2 issues that need addressing immediately:
(i) Word order
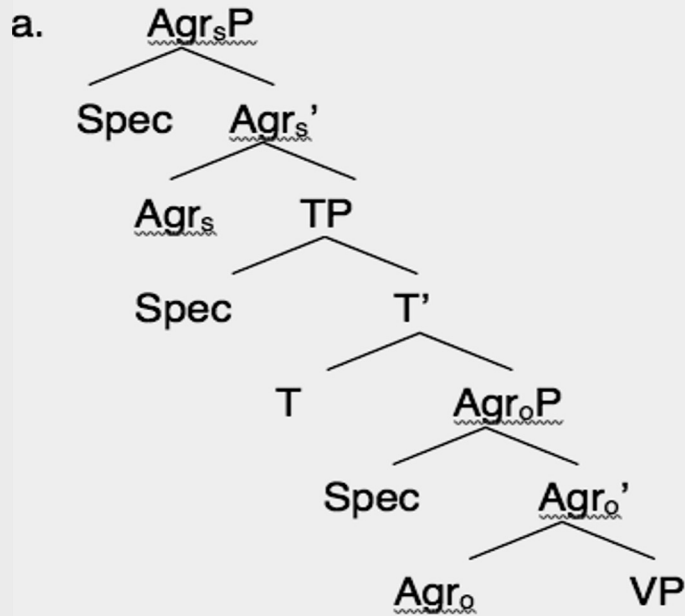(ii) Subject Case

b. AgrP
Spec   Agr'
Agr   VP
V   NP_{OBJ}

The response to these issues led to the following developments:

(i) Covert movement for case

(ii) 2 AgrPs (Agr$_s$P for Subject Agreement/ Case, and Agr$_o$P for Object Agreement/Case)

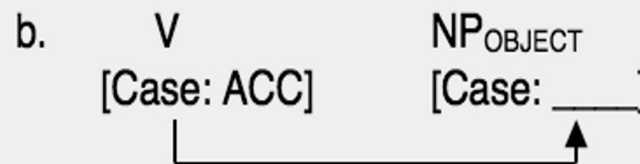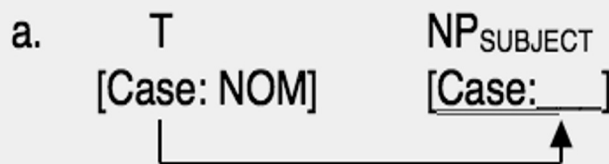Due to (ii) above, the clause structure underwent further changes; and due to (i), economy became a central motif

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Uniformity of Case/ Agreement

a.

The SPEC-HEAD relations are follows:

b.

c.
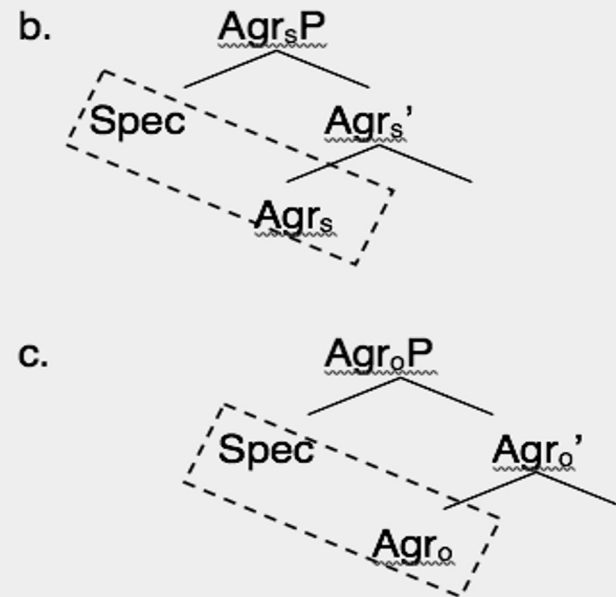
Uniformity of case and agreement for subject and object is achieved. Now case is not assigned but is rather checked:
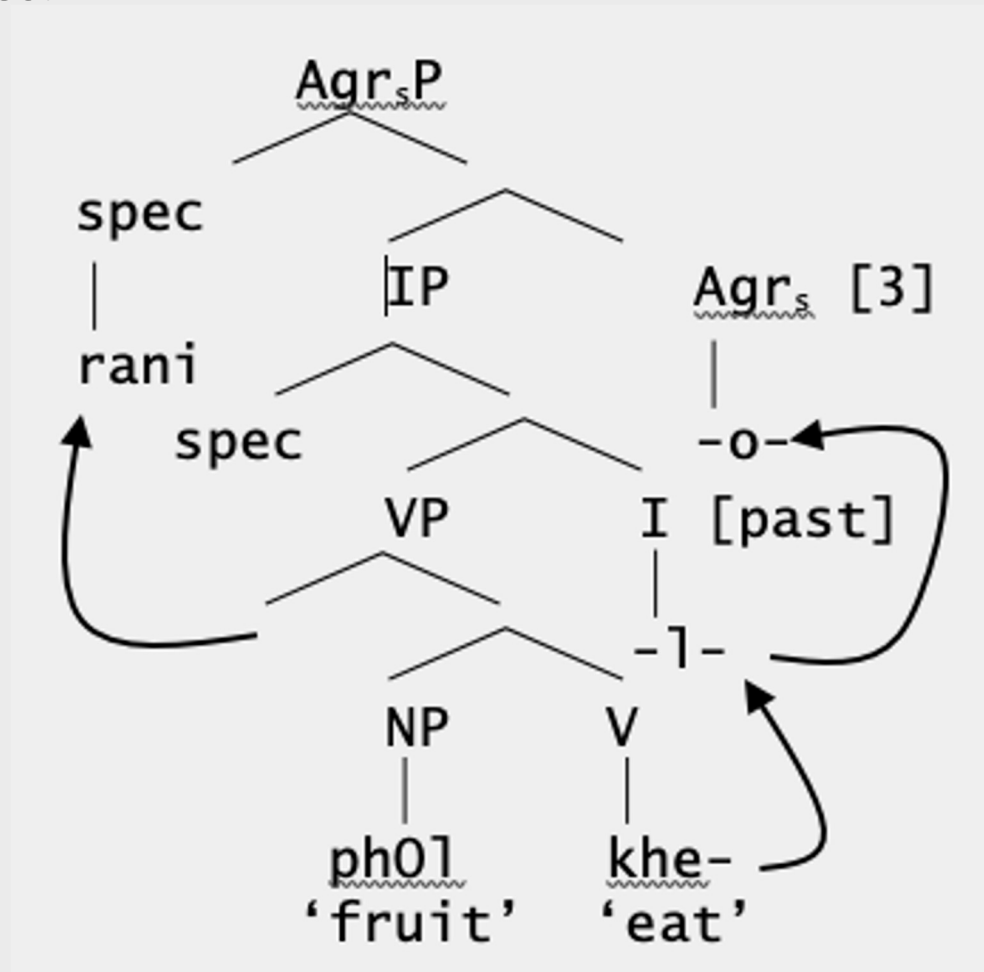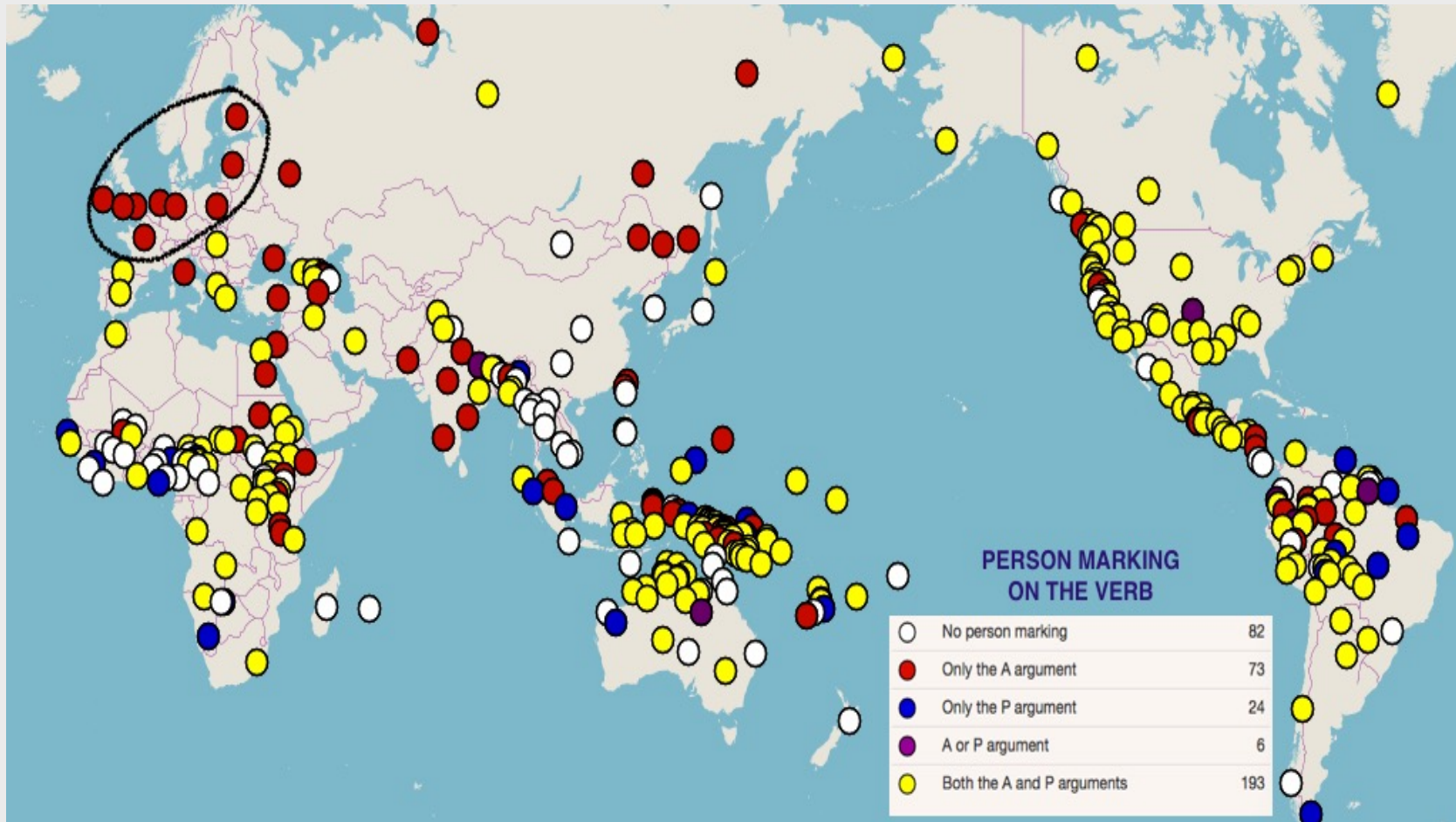
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Agreement/ Case in an SOV Language

Let us see how this works. If there is a verb and a subject, then the V moves to the Agr head and Subj moves to the SPEC of that head and they agree and match features.

Rani   phOl   khe-l-o

Rani   fruit   eat-pst-3

Rani ate fruit.

(Bangla)

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Person Marking World Map

PERSON MARKING
ON THE VERB

○	No person marking	82
●	Only the A argument	73
●	Only the P argument	24
●	A or P argument	6
○	Both the A and P arguments	193

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The history of Syntax is dominated by a small group of
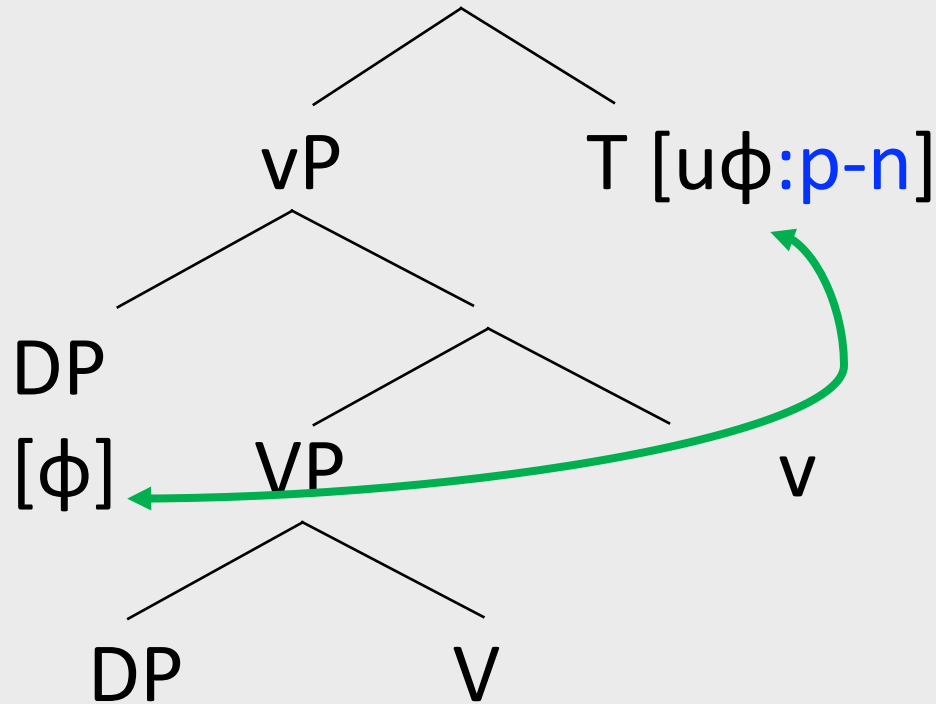languages (marked in oval above)

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The 'Politics' of History

- The Second agreement slot was partly the contribution of researchers from south Asia (especially Mahajan 1991) which changed the future development of the syntax of agreement.

- WALS map reveals 'bias' in agreement studies:

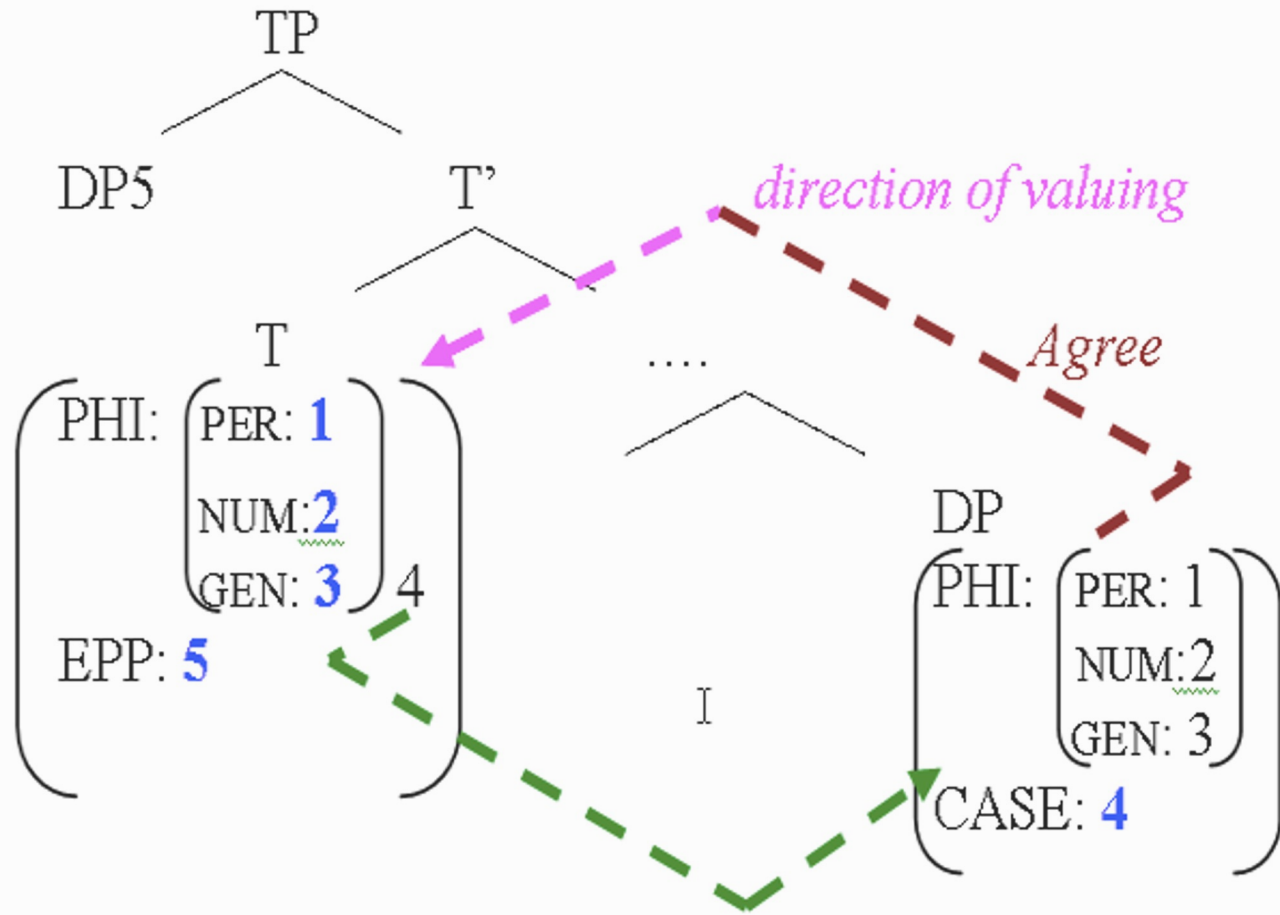 - double or multiple agreement is the more common strategy (>51%) [378 languages]

A Short Primer on Agree

When T agrees with the Subject DP, the latter's φ-features are copied onto T, and so on. This is standard Agree and is shown below:
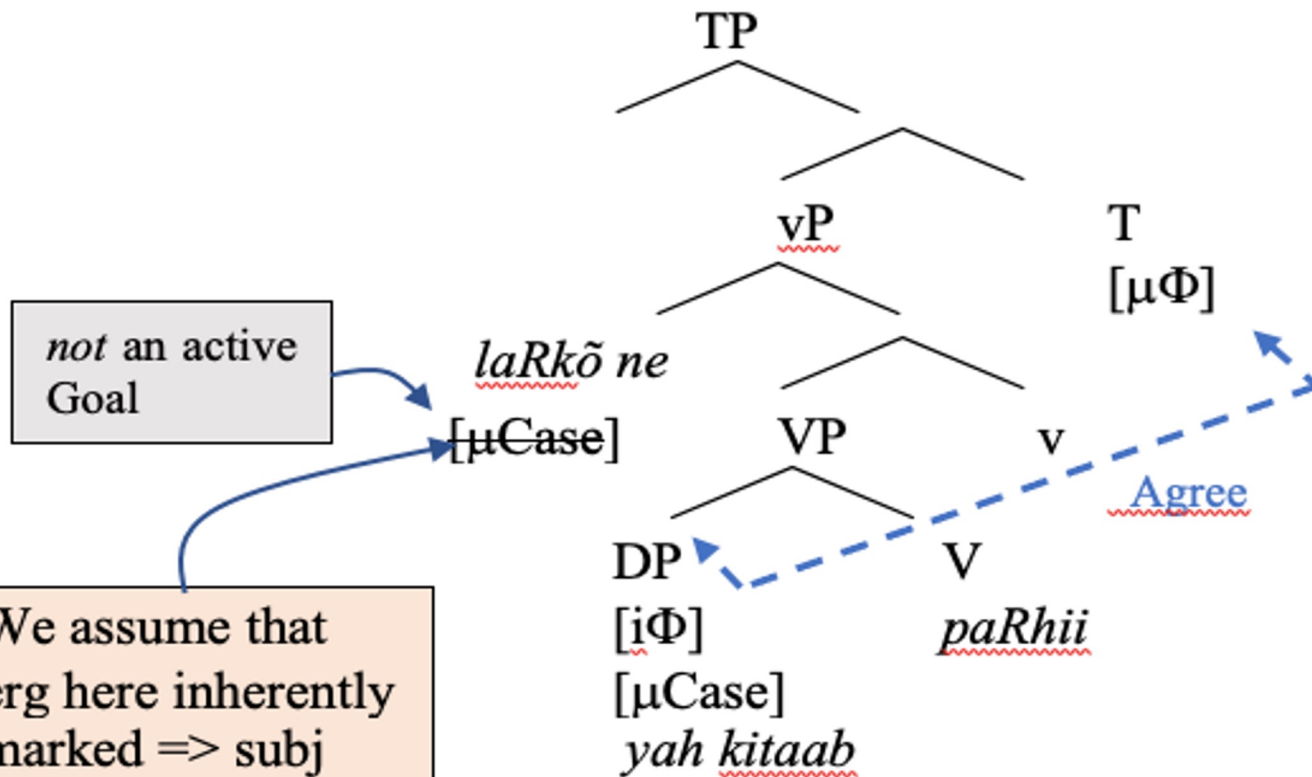

➔ V-T-AGR$_{SUBJ}$

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The Finer Details

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Deriving Case/Agreement by Agree

laRkõ	*ne*	*yah*	*kitaab*	*paRhii*
boys	erg	this	book	read.3fms

(The) boys read this book.

TP

vP   T
          [μΦ]

laRkõ ne

[μCase]   VP   v

                           Agree

DP   V
[iΦ]   *paRhii*
[μCase]
yah kitaab

not an active Goal

We assume that erg here inherently marked => subj cannot take part in Agree

Multiple Agreement

It is also possible for the *v* head to establish Agree with another DP-argument:

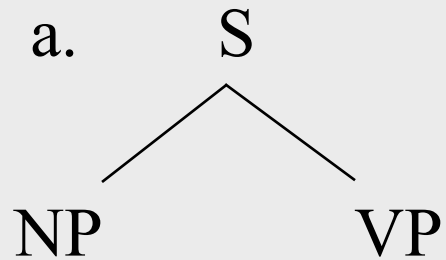

➔ V-T-AGR$_{SUBJ}$ –AGR$_{OBJ}$

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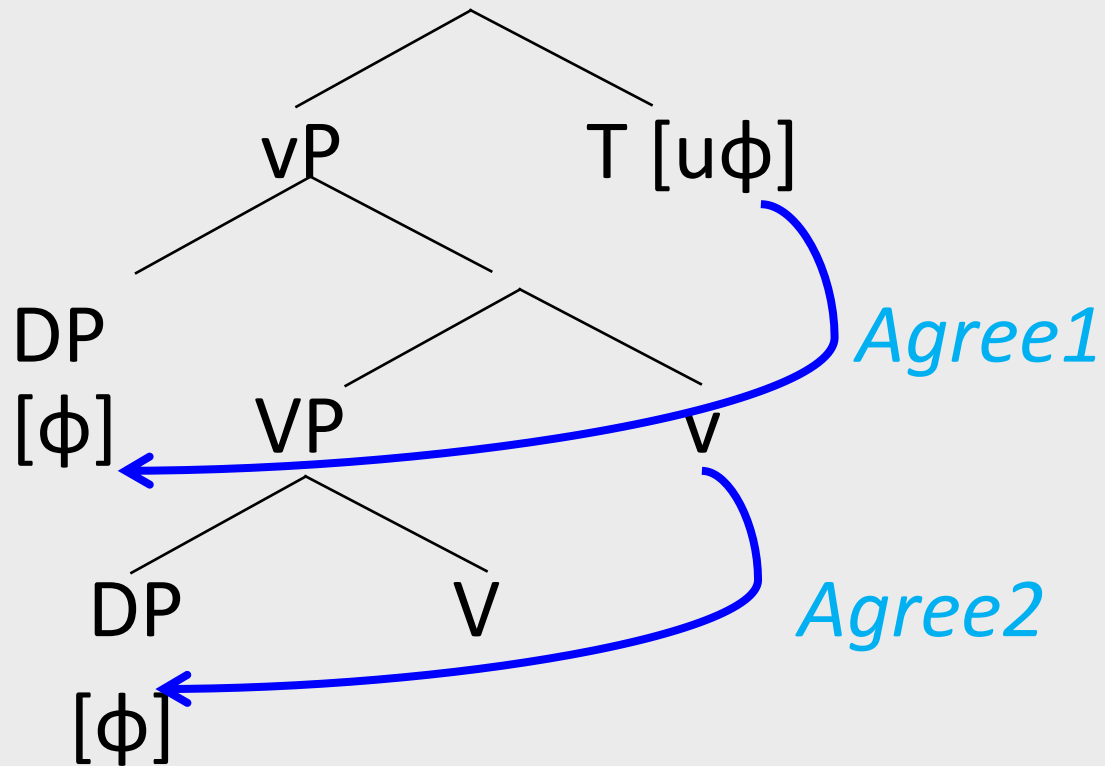
Stories of Case and Agreement

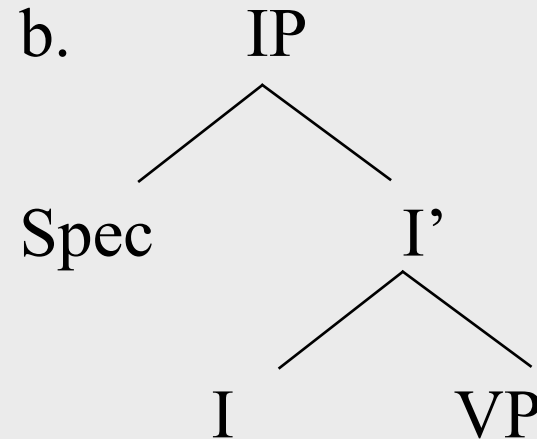| theory	technology	direction	movement	configuration
GB	case is 'assigned' magically	bi-directional (left or right)	movement for case (nominative)	IP, VP, PP (Spec-Head, Head-Complement); 'local'
MP	case is 'checked' through features	unidirectional (by raising to Spec)	movement for case (nominative, accusative)	Agr_sP, Agr_oP (Spec-Head); local
Agree	case is 'valued' through features as a by-product	unidirectional (on Goal)	no movement for case (nominative, accusative)	IP/TP, vP, PP; long-distance

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A Short Primer on Labels

- The major part of the history of generative grammar dealt with rules and then rules as equations that derived graphs:

a. S $\rightarrow$ NP, VP

b. $\bar{\bar{\text{I}}} \rightarrow$ Spec, $\bar{\text{I}}$; $\rightarrow$ I, VP

a.
```
      S
     / \
   NP   VP
```

b.
```
        IP
       /  \
     Spec  I'
          /  \
         I    VP
```
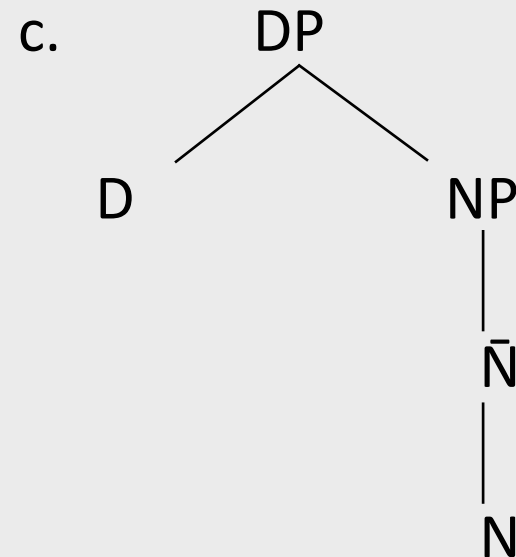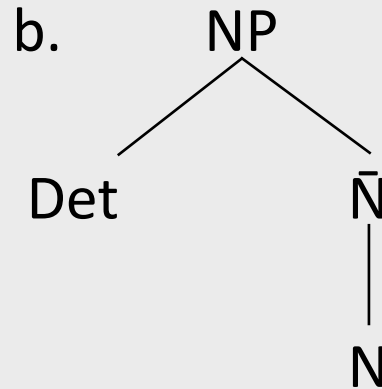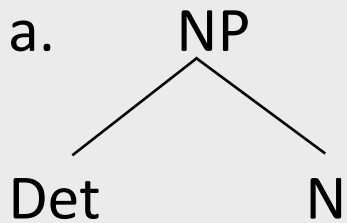
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Redundancy

- Let us take a specific case like the NP-expansion rule, which improved as follows:

a.   NP → Det, N   b. NP → Det, N'.   c. DP → D, NP

a.   NP   b.   NP   c.   DP

Det   N   Det   N̄   D   NP

N   N̄

N

=> In graph (c), the noun *tree* gets 4 labels – N, N̄, NP, and DP. In addition, the entire syntactic structure is also called a DP, so there are two representations of DP.

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BPS

- All this was put to a halt in 1995 in a paper by Chomsky called 'Bare Phrase Structure' (BPS), except that the idea never really took off! *The tree* is represented as follows:

$$\text{the ('label')}$$
$$\diagup \quad \diagdown$$
$$\text{the} \qquad\qquad \text{tree (LI)}$$
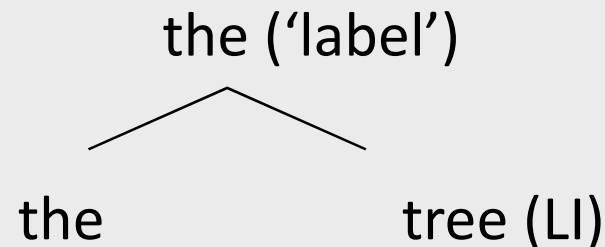
- There are only LIs (Lexical Items) and labels, nothing in between; grammatical information that the LI tree is a noun is not important for either composition or generation.

- The difference between the two *the*s is captured by the fact the label 'the' represents the set {the, tree}, we can describe such a collective representation as a "derived LI".

- Adjuncts and arguments are distinguished by their set memberships.

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