# Agree, Move, Selection, and Set-Merge

Petr Biskup Universität Leipzig www.uni-leipzig.de/~biskup/

#### 1. Introduction

- There are non-local relations in syntax (2), (4)-(6).
- Problem for Chomsky's model with forgotten phases because Agree is subject to the PIC (see Chomsky 2000, 2001).
- (1) Strong version of PIC (Chomsky 2000, 108): In phase  $\alpha$  with head H, the domain of H is not accessible to operations outside  $\alpha$ ; only H and its edge are accessible to such operations.
- But T can access an element of the complement of the phase head (Icelandic quirky subjects). One phase boundary.
- Agreement across vP phase boundary in Czech (2b):
- (2) a. Včera bylo vidět Sněžku.
   Yesterday was<sub>NEUTR</sub> see Sněžka<sub>ACC</sub>
   b. Včera byla vidět Sněžka.
   Yesterday was<sub>FEM</sub> see Sněžka<sub>NOM</sub>
   'It was possible to see Sněžka yesterday.'
- (3) Weak version of PIC (Chomsky 2001,14): [In the structure [ $_{ZP}$  Z... [ $_{HP}$   $\alpha$  [ H YP]]], with H and Z the heads of phases], The domain of H is not accessible to operations at ZP; only H and its edge are accessible to such operations.
- Condition C as a probe-goal relation between the pronoun and the r-expression (Chomsky 2005b). Four phase boundaries between the coindexed pronoun and the r-expression:
- (4) \*pro<sub>1</sub> říkal, že Pavel tvrdil, že Jirka<sub>1</sub> je chytrý. said that Pavel<sub>NOM</sub> claimed that Jirka<sub>NOM</sub> is clever 'He said that Pavel had claimed that Jirka was clever.'
- Control constructions as CPs and Agree-based analysis of anaphors (Chomsky 2005b, 2006; building on Reuland 2001). Three phase boundaries between the matrix T and the anaphor:
- (5) Marie<sub>1</sub> přikázala Jirkovi citovat sebe<sub>1</sub>.

  Marie<sub>NOM</sub> ordered Jirka<sub>DAT</sub> to cite self.

  'Marie ordered Jirka to cite her.'

• Khwarshi: North Caucasian language spoken by about 3,000 people in Southern Dagestan. Agreement between matrix v (gender 4) and its sentential complement (6a). Agreement between matrix v (gender 5) and the absolutive argument in the finite complement clause (6b). Probably two phase boundaries.

- (6) a. Išet'u-l l-iq'-še goli uža bataxu y-acc-u.

  Mother/OBL-LAT G4-know-PRS COP [boy/ERG bread(G5) G5-eat-PTCP:PST]

  'Mother knows that the boy ate bread.'
  - b. Išet'u-l **y**-iq'-še goli uža **bataxu** y-acc-u.

    Mother/OBL-LAT G5-know-PRS COP [boy/ERG bread(G5) G5-eat-PTCP:PST]

    'Mother knows that the boy ate bread.'

(from Khalilova 2007, 4)

- Agree, in contrast to Move, is not subject to the PIC (Bošković 2007). First conjunct agreement is grammatical (7a), but movement of the first conjunct out of the coordination-phrase phase is ungrammatical (7b).
- (7) a. There is a woman and five men in the garden.
  - b. \*A woman is and five men in the garden.

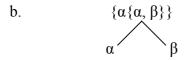
(from Bošković 2007, 15)

- Agree vs. Move in Czech:
- (8) a. Marie<sub>1</sub> vyprávěla o životě svého<sub>1</sub> přítele. Marie<sub>NOM</sub> talked about life self friend 'Marie talked about her friend's life.'
  - b. \*Koho Marie vyprávěla o životě? who Marie<sub>NOM</sub> talked about life 'Whose did Marie talk about life?'

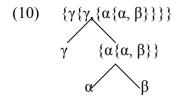
## 2. Proposal

### 2.1. Set-Merge

(9) a. Chomsky (1995, 243-244): Merger of  $\alpha$  and  $\beta$  forms  $\{\gamma\{\alpha,\beta\}\}$ , where  $\gamma$  is the label and  $\alpha$  and  $\beta$  sets of features. And the label (head)  $\gamma$  is either  $\alpha$  or  $\beta$ .



- Syntactic structure means growth of information.
- Given (9), a phase with a phase head ( $\gamma$ ) and its complement ({ $\alpha$ { $\alpha$ ,  $\beta$ }}) looks like (10).



#### 2.2. Selection

- The label of a syntactic object contains all the information relevant for further computations and for syntactic operations only the label of the syntactic object is visible (e.g. Chomsky 2005a, 14 and 2005b, 7).
- Correct for c-selection (11):

```
na selects a DP (11a), not a VP (11b):
```

(11) a. [PP na [DP stul]]

on table

b. \*[PP na [VP utřít]] on wipe

na can be combined with the event of 'wiping' if it is a noun:

c. [PP na [DP utření]]

on wiping

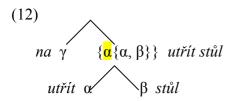
utřít can be combined with stůl:

d. [VP utřít [DP stůl]]

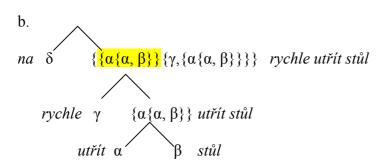
wipe table

na cannot select a DP non-locally:

- e. \*[PP] na [VP] utřít [DP] stůl]]] on wipe table
- na ( $\gamma$ ) only cares about the label of  $[ut\check{r}it\ st\mathring{u}l]$  i.e. label  $\alpha$  and not about the whole set information (e.g. label of  $st\mathring{u}l$  ( $\beta$ )):

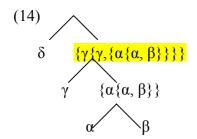


- In fact, not about the whole label ( $\{\alpha\{\alpha,\beta\}\}\)$  in (13)), only about the highest (leftmost) label ( $\alpha$ ).
- (13) a. \*na rychle utřít stůl on quickly wipe table

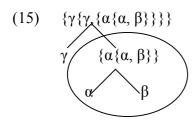


### 2.3. Agree

• In contrast, for Agree (probe  $\delta$ ), the whole set information of the syntactic object is relevant.

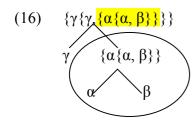


• Given the PIC, when a phase  $(\gamma P)$  is spelled out, the complement of the phase head becomes inaccessible:

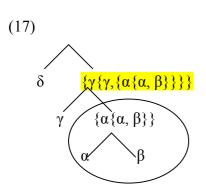


• Difference between the set information about the syntactic structure on particular nodes and the presence of elements in the structure.

Complement of the phase head ( $\{\alpha\{\alpha,\beta\}\}\)$ ) is inaccessible (sent to spellout) but the information about it is present on the highest node:

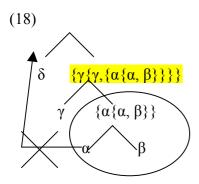


• Non-complement nodes stay in the derivation after spellout, hence probing elements (here  $\delta$ ) merged later can see the history of the derivation with relevant goals and can be valued (e.g. (6)):



#### **2.4.** Move

• Although probes see features of the elements in the phase complement, they cannot move the appropriate elements because they are not present in the structure; they have been sent to spellout:



#### 3. Conclusion

Agree behaves differently from c-selection and Move wrt. the information given by set-Merge. For Agree, the whole set information on particular nodes is relevant. For c-selection, only the highest label in the set information is relevant. Move, though based on Agree, cannot be applied to all elements visible for Agree because some elements have already been spelled out.

#### References

Bošković, Ž. (2007), Agree, Phases, and Intervention Effects.

http://web.uconn.edu/boskovic/papers.html (Final version published in Linguistic Analysis 33: 54-96.)

Chomsky, N. (1995), The Minimalist Program. Cambridge, MA: MIT Press.

Chomsky, N. (2000), Minimalist Inquiries: The Framework. In: Martin, R., Michaels, D.,

Uriagereka, J. (eds.), Step by Step: Essays on minimalist syntax in honor of Howard Lasnik.

Cambridge, Mass.: MIT Press, 89-156.

Chomsky, N. (2001), Derivation by Phase. In: Kenstowicz, M. (ed.), Ken Hale: A Life in Language. Cambridge, Mass.: MIT Press, 1-52.

Chomsky, N. (2005a), Three Factors in Language Design. Linguistic Inquiry 36, 1-22.

Chomsky, N. (2005b), On Phases. Ms. MIT.

http://www.phon.ucl.ac.uk/home/hans/mrg/chomsky onphases 1204.pdf

Chomsky, N. (2006), Approaching UG from below. Ms. MIT.

Khalilova, Z. (2007), Clause linkage: coordination, subordination and cosubordination in Khwarshi. Handout from Typologisches Forschungskolloquium. Universität Leipzig.

Reuland, E.J. (2001), Primitives of Binding. Linguistic Inquiry 32, 439-492.