

The Head Parameter as Encoded into Functional Categories

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1. Introduction

(Q) How to characterize the head parameter under the minimalist program?

<Claim>

- (i) The head parameter exists.
- (ii) It is encoded only into functional categories.
- Lexical categories have only asymmetrical structures a la Kayne (1994) and Fukui and Takano (1998) while functional categories allow symmetrical structures with the head parameter encoded.
- ➔ It gives support to Fukui's (1995) Functional Parametrization Hypothesis (FPH), according to which lexical projections are uniform among languages and parametrization is attributed to functional categories.

2. How to Deal with Order?

- Chomsky (2013):

(T) "Order and other arrangements are a peripheral part of language, related solely to externalization at the SM interface, where of course they are necessary."

(Chomsky 2013, p. 36)

"language is not sound with meaning, but rather meaning with sound, ... language is primarily an instrument of thought ..."

(ibid.)

- ➔ Linearization should be conducted outside narrow syntax, somewhere along the course to the SM interface.
- ➔ I want to take a symmetrical view according to which language is simply a medium of sound and meaning, so that linearization should be dealt with *within* narrow syntax.

- Ordering as parallel to labeling:

“Projection is a theory-internal notion, part of the computational process GP. For a syntactic object SO to be interpreted, some information is necessary about it: what kind of object is it? Labeling is the process of providing that information. Under PSG and its offshoots, labeling is part of the process of forming a syntactic object SO. But that is no longer true when the stipulations of these systems are eliminated in the simpler Merge-based conception of UG. We assume, then, that there is a fixed labeling algorithm LA that licenses SOs so that they can be interpreted at the interfaces, operating at the phase level along with other operations.” (ibid., p. 43)

→ Try replacing projection by order and labeling by ordering.

→ Ordering is necessary for a proper interpretation at the SM interface, just like labeling is at the CI interface.

3. Why Parameters?

- Given the minimalist thesis that the faculty of language (FL) is an optimal solution to interface conditions, there exists a situation in FL where a solution to a requirement imposed by the interfaces is more optimal if a piece of that solution is left undecided, or left to the decision by experience. A parameter is an optimal solution for dealing with such a situation.

→ Underspecification view on parameters

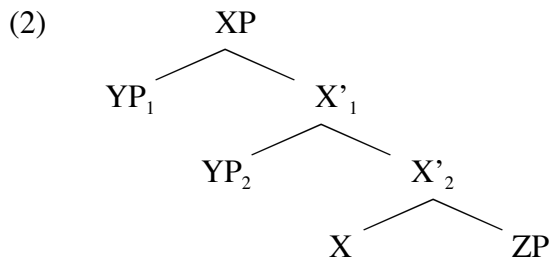
4. Ordering Algorithm and Head Parameter

- Abe (2001):

(1) When α and β merge to make K, so that K dominates α and β , α precedes β if α is visible and β is invisible.

- The visibility of a syntactic object is determined on the basis of relevance to interpretation at the interface:

“bare output conditions make the concepts ‘minimal and maximal projection’ available [=visible] to C_{HL} ,” (Chomsky 1995, p. 242) since only these projections are relevant to interpretation at the interface.



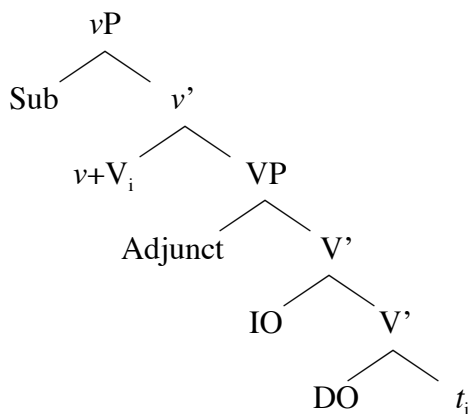
- ➔ Specifiers are always on the right side of given nodes, whereas the order of head-complement is undetermined.
- ➔ Suppose that the ordering algorithm given in (1) is an optimal solution to the determination of linear ordering and hence that to keep this optimality, the linear ordering of a head to its complement should be determined by implanting a parameter.

5. Functional Heads as Locus of the Head Parameter

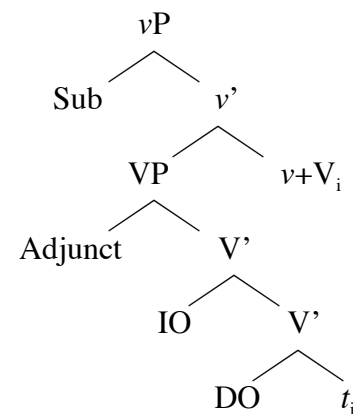
- Abe (2001):

The way the head-parameter is implanted should obey Fukui's FPH.

(3) a. English



b. Japanese



- ➔ Though English and Japanese have opposite head-complement orders, their VP structures basically have strictly right branching structures, with IO-DO as their underlying structure.
- ➔ Under the assumption that V raises obligatorily to v , the linear order between V and its complement can be left undetermined.

- What precedes is higher than what follows within VP irrespective of the head-complement order:

- (4) a. I gave the mothers each other's babies. (IO-DO)
 b. *I gave each other's mothers the babies.
 c. I gave the babies to each other's mothers. (DO-IO)
 d. ?I gave each other's babies to the mothers.
- (5) a. Mary-ga [subete-no gakusee]_i-ni soitu_i-no sensee-o syookaisita. (IO-DO)
-Nom every student -Dat his/her teacher-Acc introduced
 'Mary introduced his/her teacher to every student.'
 b. *Mary-ga soitu_i-no sensee-ni [subete-no gakusee]_i-o syookaisita.
-Nom his/her teacher-Dat every student -Acc introduced
 'Mary introduced every student to his/her teacher.'
 c. Mary-ga [subete-no gakusee]_i-o soitu_i-no sensee-ni syookaisita. (DO-IO)
 d. ?Mary-ga soitu_i-no sensee-o [subete-no gakusee]_i-ni syookaisita.

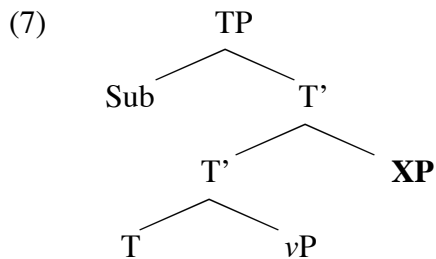
➔ The fair acceptability of (4d) and (5d) is due to reconstruction effects under the assumption that the basic hierarchical order of VP is subject-IO-DO (cf. Takano 1998).

- Adjunction as regulated by the head parameter:

Fukui (1993): The value of the head parameter should be preserved in derived structures, so that an adjunction operation should create a structure that is consistent with the value of the head parameter in a given language:

- (6) a. $X' \rightarrow X/X' YP$
 b. $X' \rightarrow YP X/X'$

➔ Under the assumption that the head parameter is encoded only into functional categories, it is reasonable to assume that adjunction structures can be built only in functional categories.



- What precedes can be *lower* than what follows above VP: (cf. Reinhart 1976):

- (8) a. We sent him_i to West Point in order to please Ben_i 's mother.
 b. Nobody would ever call her_i before noon who knows anything about $Rosa_i$'s weird sleeping habits.

- The acceptability of (8a,b) shows that the pronouns *him* and *her* do not c-command into the *in order* adjunct clause and the extraposed relative clause, respectively, despite the fact that they precede the latter adjunct clauses. It is not clear how the asymmetrical structure proponents can account for these facts.
 → Under the present assumptions, the *in order* and extraposed adjunct clauses are right-adjoined to TP, as in (7), a position higher than the matrix object pronouns.

- Andrews (1983):

- (9) a.(?)John twice intentionally knocked on the door. (twice > intentionally)
 b.(??)John intentionally twice knocked on the door. (intentionally > twice)
 (10) a. John knocked on the door twice intentionally. (intentionally > twice)
 b. John knocked on the door intentionally twice. (twice > intentionally)
 → The contrast between the left periphery (9) and the right periphery (10) lends strong support to the existence of symmetrical structures in functional categories.

- Pesetsky (1989):

- (11) As for Mary, Bill relied intentionally twice on her. (intentionally > twice)
 → When the PP put at the end in (11) is changed into a “heavier” PP, the sentence becomes ambiguous:

(12) John relied intentionally twice on the person you told me about.

(intentionally >< twice)

→ In this case, the adverbs *intentionally* and *twice* can be right-adjoined to TP together with the heavy shifted PP *on the person you told me about*.

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