LF Symmetry in Coordination

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Overview: I propose a novel analysis on Symmetry in Coordinate Structure and its constraint from following properties; (i) Coordinate Structure Constraint (CSC) constraints LF representation (Ruys 1993, Fox 2000, Kato 2010 a.o.); (ii) neither symmetry in PF-representation (PF) nor overt-syntactic representation (hereinafter D(erivation)) concerns CSC. As a consequence, I propose that the peculiar Case realization (Munn 1993, Johannessen 1998, Camacho2003 a.o.) is possible as a PF representation without violating symmetry of Coordination as a consequence.

Background: Coordination has been regarded as a sentence containing multiple symmetrically juxtaposed items (1). While the extraction of items from each conjunct, keeping the symmetry of each conjunct, derives grammatical sentences (2a: Across the board (ATB) movement), if this symmetry is broken, the sentence turn to be ungrammatical (2b). This effect in Coordination is, first, observed by Ross (1967) and known as the Coordinate Structure Constraint (3:CSC).

Proposal: I claim that PF/D symmetry in Coordination cannot be defended as CSC, but symmetry at LF (Fox 2000, Kato 2010 a.o) is primal concern of CSC. As a theory of LF symmetry, I will assume that Coordination has to satisfy the requirement given in (4) at LF. To evident the current proposal, (i) c-selection, and (ii) Wh-in situ are looked at.

C-selection: The argument structure of the verb is inherently equipped with the verb and controls the occurrence of arguments of verb. This requirement from the verb is satisfied by merge, operation inside D. If the symmetric property needs to be maintained both/either PF/D, then the sentences containing the asymmetric structure should be ruled out, since in Numeration, only single verb is selected and it is introduced in D. Then, if the symmetry is required within D, the juxtaposed arguments selected by the verb have to be structurally uniform. However, Symmetry requirement at D cannot be hold, since as indicated in (5) the coordinated items do not have to be structurally uniform and even the sentence containing structurally different arguments is grammatical. Thus, as a result, there is no symmetry requirement to be satisfied at D, in terms of juxtaposed arguments, and D does not concern symmetry between juxtaposed items. Although superficially the juxtaposed items are not symmetric, each component structure at LF is grammatical as depicted in (6). Therefore, the symmetry at LF is not violated and then the sentence is grammatical.

***Wh*-in situ**: As well as symmetry breaking overt *wh*-movement as in (2b), covert *wh*-movement is constraint by CSC. The subject *wh*-phrases in both conjunct undergo ATB-movement and the object *wh*-phrase does not move in D (7). In this case, both conjuncts contain trace of moved item (*t*) since no extraction takes place. As a result, nothing violates CSC at PF/D. Therefore, the symmetry between the first and the second conjunct is hold in PF/D. However, the sentence involving cover operation is ungrammatical. This property cannot be captured, by assuming CSC as a constraint of D. However, LF approach correctly rules out (6), since one of the component structures of (7) does not have correct Op-trace relation (8b).

Consequence: Coordination exhibits some weird Case realization pattern (Munn 1993, Johannessen 1998, Camacho 2003, a.o.) (9). One of the coordinated NPs both in subject and in object positions optionally exhibits peculiar Case declension. This can be accounted by the definition that Case features are uninterpretable at LF. Since the Case feature is invisible at LF representation and the form is irrelevant in terms of LF component structure (4). Thus the peculiar Case realization does not yield ungrammaticality.

Data (Selected)

(1) John played the guitar and Mary played the violin.

(2)   a.   What*i* did John played *ti* and Mary play *ti*?
       b. *What*i* did John played the guitar and Mary play *ti*?

(3) In the Coordinate Structure, no conjunct may be moved nor may any element contained in a conjunct be moved out of that conjunct.

(4)   a. A sentence is well-formed only if each of its component structures independently satisfies grammatical constraints.
      b. Definition: Component structure of a sentence = structures each of which result from removing the conjunction and all but one of the conjuncts from each coordinate structure in the sentence.   (Kato 2010)

(5) Pat was annoyed by [the children's noise] and [that their parents did nothing to stop it].
                                                                                (Progovac 1999)

(6) LF Component Structure
      a. OKPat was annoyed by the children's noise
      b. OKPat was annoyed by that their parents did nothing to stop it.

(7)   *I wonder who*i* [*ti* took what from Mary] and [*ti* gave a book to Fred].

(8)   LF Component Structure
      a. OKI wonder who what *ti* took *tj* from Mary
      b. *I wonder who what *ti* gave a book to Fred.

(9)   a. She and him will drive will drive to the movies.
       b. All debts are cleared between you and I.

                                                                                (Progovac 1999)

References (Selected)

Camacho. J. 2003. *The structure of Coordination.* Kluwer. Fox. D. 2000 E*cnomomy and Semantic Interpretation*. MIT Press. Johannnessen. J.B. 1998. *Coordination*. OUP. Kato. T 2010 Symmetries in Coordination. –The Nature of CSC and its Implication-. –ms. Munn. A. 1993. Topics in Syntax and Semantics of Coordinate Structures. unpublished Ph.D diss. Progovac.L. 1999. Structure of Coordination Part I, II. GLOT international. Ross. J. 1967. Constraints of Variables in Syntax. Unpublished Ph,D diss. Ruys.E. 1993. The Scope of Indefinites. Unpublished. Ph.D diss.