

Notes on Coordination, Copula and From-To Constructions

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This paper argues that three types of constructions, namely coordination, copula, and from-to constructions, share the same structure. From-to constructions are in (1) and (2). While its semantics has extensively been studied (Zwarts 2013 a.o.), few studies on the syntax of *from-to* constructions have been carried out so far. This paper will first demonstrate that the *from-to* construction is inseparable just like coordination and the equative copula construction. Then, it is shown that extraction out of *from NP* or *to NP* is impossible just like coordination and the equative copula construction. These commonalities indicate that the three constructions share the same structure. I specifically claim that they are derived via symmetry-breaking movement from the XP-YP structure.

- (1) a. John played the banjo [from Alabama to Louisiana]. (Williams 1994)
b. The range of diabetes sufferers stretches [from children to adults]. (Kobayashi 2018)
- (2) Demotai-ga [kodomu-kara otona-made] kooosinsi-tei-ta. (Japanese)
demonstrators-Nom child-from adult-to march-Asp-Pst
Lit. 'Demonstrators, from children to adults, were marching.' (Kobayashi to appear)

From-to Constructions: In *from-to* constructions, topicalization of either *from NP* or *to NP* is impossible, as in (3) and (4). The data from Japanese in (5) shows that scrambling of *NP-made* results in ungrammaticality (The same is the case with *NP-kara*).

- (3) a. *From Alabama, John played the banjo to Louisiana.
b. *To Louisiana, John played the banjo from Alabama.
- (4) a. *From children, the range of diabetes sufferers stretches to adults.
b. *To adults, the range of diabetes sufferers stretches from children.
- (5) *?Otona-made_i demotai-ga kodomo-kara t_i kooosinsi-tei-ta.
adult-to demonstrators-Nom child-from march-Asp-Pst
Lit. 'To adults, demonstrators, from children were marching.'

Further evidence that *from NP* and *to NP* are inseparable comes from clefting. In (4) and (5), clefting of either *from NP* or *to NP* obtains ungrammaticality. Clefting of *NP-kara* obtains ungrammatical results in Japanese as well in (8) (The same is the case with *NP-made*).

- (6) a. *It was from Alabama that John played the banjo to Louisiana.
b. *It was to Louisiana that John played the banjo from Alabama.
- (7) a. *It is from children that the range of diabetes sufferers stretches to adults.
b. *It is to adults that the range of diabetes sufferers stretches from children.
- (8) *Demotai-ga otona-made kooosinsi-tei-ta no-wa kodomo-kara da.
demonstrators-Nom adult-to march-Asp-Pst Nm-Top child-from Cop.Prs
Lit. 'It is from children that demonstrators were marching to adults.'

Extraction of Conjuncts: In coordination (9), extraction of conjunct is prohibited. Similar results are found in the case of *from-to* constructions. In (10) and (11), *wh* movement of either *from NP* or *to NP* ends up ungrammatical.

- (9) a. *What_i did Mary send a parcel and t_i? b. *What_i did Mary send t_i and a parcel?
- (10) a. *From where_i did John play the banjo t_i to Louisiana?
b. *To where_i did John play the banjo from Alabama t_i?
- (11) a. *From what_i does the range of diabetes sufferers stretches t_i to adults.
b. *To what_i does the range of diabetes sufferers stretches from children t_i.

The same result is observed in the equative copula construction. Extraction of the pre copula nominal or of the post copula nominal is prohibited, as illustrated in (12b) and (12c).

- (12) a. I think your opinion of New York is my opinion of Amsterdam. (den Dikken 2006)
b. *Whose opinion of New York_i do you think t_i is my opinion of Amsterdam?
c. *Whose opinion of Amsterdam_i do you think your opinion of New York is t_i?

These observations indicate that *from-to* constructions and the equative copula construction obey (some version of) the first half of the Coordinate Structure Constraints (CSC) in (13).

- (13) **Ross's (1967) CSC:** In a coordinate structure, (i) no conjunct may be moved, (ii) nor may any element contained in a conjunct be moved out of that conjunct.

Extraction out of Conjuncts: In coordination, extraction out of conjuncts obtains ungrammatical results in (14) (the second half of the CSC in (13)). Likewise, extraction out of *from NP* or *to NP* is prohibited in *from-to* constructions, as illustrated in (15). The same is the case in Japanese: extraction out of *kara-NP* or *made-NP* is prohibited, as illustrated in (16).

- (14) a. *What_i did Mary [send t_i on Monday] and [receive the parcel on Wednesday]?

- b. *What_i did Mary [send the parcel on Monday] and [receive t_i on Wednesday]? (Kato 2006)
- (15) a. John played the banjo [from the east of the building 1] [to the west of building 2].
 b. *Which building_i did John play the banjo [from the east of the building 1] [to the west of t_i]?
 c. *Which building_i did John play the banjo [from the east of t_i] [to the west of the building 2]?
- (16) a. Taro-ga [[taiya-o seisansu-ru kogaisya-kara] [kuruma-o hanbaisu-ru oyagaisya-made]] uttae-ta.
 T.-Nom tire-Acc produce-Prs subsidiary-from car-Acc sell-Prs parent.firm-to sue-Pst
 Lit. ‘Taro sued from subsidiaries producing tires to the parent firm selling cars.’
 b. *Nani-o; Taro-ga [[taiya-o seisansu-ru kogaisya-kara][t_i hanbaisu-ru oyagaisya-made]] uttae-ta no?
 what-Acc T.-Nom tire-Acc produce-Prs subsidiary-from sell-Prs parent.firm-to sue-Pst Q
 c. *Nani-o; Taro-ga [[t_i seisansu-ru kogaisya-kara] [kuruma-o hanbaisu-ru oyagaisya-made]] uttae-ta no?
 what-Acc T.-Nom produce-Prs subsidiary-from car-Acc sell-Prs parent.firm-to sue-Pst Q

The CSC effect is obviated by the Across-the-board (ATB) extraction, as illustrated in (17) below. The same is the case in *from-to* constructions in (18a-b) in English and Japanese. This is reminiscent of coordinate structures with their ATB effect, in which a single surface element is interpreted inside the two coordinates.

- (17) What_i did Mary [send t_i on Monday] and [receive t_i on Wednesday]? (Kato 2006)
- (18) a. Which building_i did John play the banjo [from the east of t_i] [to the west of t_i]? (=15)
 b. Nani-o; Taro-ga [[t_i seisansu-ru kogaisya-kara][t_i hanbaisu-ru oyagaisya-made]] uttae-ta no?
 Lit. ‘What_i did Taro sue from subsidiaries producing t_i to the parent firm selling t_i.’ (=16)

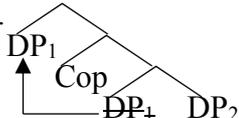
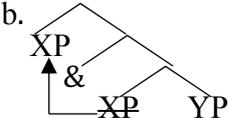
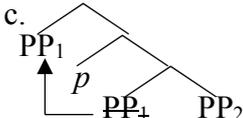
The same contrast is also observed in the equative copula construction in (19). While extraction from pre copula or post copula nominal is prohibited in (19b-c), ATB extraction of *which city* saves the structure in (19d). The same is the case with copula constructions in Japanese (20). Extraction out of the first or the second NP is prohibited in (20b-c), but the ATB extraction saves the structure in (20d).

- (19) a. Your opinion of Edinburgh is my opinion of Philadelphia. (Heycock and Kroch 1999)
 b. *Which city_i is [your opinion of t_i] [my opinion of Philadelphia]?
 c. *Which city_i is [your opinion of Edinburgh] [my opinion of t_i]?
 d. Which city_i is [your opinion of t_i] [my opinion of t_i]?
- (20) a. John-ga Taro-ga [yubiwa-o ut-ta mise]-ga [Jiro-ga piasu-o kat-ta mise] dat-ta to it-ta
 J.-Nom T.-Nom ring-Acc sell-Pst shop-Nom J.-Nom pierce-Acc buy-Pst shop Cop-Pst C say-Pst
 ‘John said that the shop where Taro sold the ring was the shop where Jiro bought the pierce.’
 b. *?Nani-o; [John-ga [[Taro-ga t_i ut-ta mise]-ga [Jiro-ga piasu-o kat-ta mise] dat-ta] to it-ta no?
 what-Acc J.-Nom T.-Nom sell-Pst shop-Nom J.-Nom pierce-Acc buy-Pst shop Cop-Pst C say-Pst Q
 c. *Nani-o; [John-ga [[Taro-ga yubiwa-o ut-ta mise]-ga [Jiro-ga t_i kat-ta mise] dat-ta] to it-ta no?
 what-Acc J.-Nom T.-Nom ring-Acc sell-Pst shop-Nom J.-Nom buy-Pst shop Cop-Pst C say-Pst Q
 d. Nani-o; [John-ga [[Taro-ga t_i ut-ta mise]-ga [Jiro-ga t_i kat-ta mise] dat-ta] to it-ta no?
 Lit. ‘What_i did John say that the shop where Taro sold t_i is the shop where Jiro bought t_i?’

In-situ Wh: Moreover, in coordination, when in-situ *wh* appears in the first conjunct, the contrast in (21) is observed. The same is the case in *from-to* constructions in (22) and the equative copula construction in (23).

- (21) a. *I wonder who [took what from Mary] and [gave a book to Fred].
 b. I wonder who [took what_i from Mary] and [gave it_i to Fred]. (Ruys 1993)
- (22) a. John played the banjo [from the east of the building 1] [to the west of building 2].
 b. *I wonder who played the banjo [from the east of which building] [to the west of the building 2].
 c. ?I wonder who played the banjo [from the east of which building_i] [to the west of it_i].
- (23) a. *I wonder who said that your opinion of which city is my opinion of Philadelphia.
 b. I wonder who said that your opinion of which city_i is my opinion of it_i. (Asada and Kato 2010)

Structure: Based on the above observations, one may wonder what kind of structure they share. I follow Chomsky’s (2015) and Moro’s (2000) recent claim that coordination and copula constructions are derived from XP-YP structure via symmetry-breaking movement in (24a-b). I claim that the *from-to* construction also share this structure, as illustrated in (24c).

- (24) a.  b.  c. 

Conclusion: In this paper, I demonstrated that coordination, the equative copula, and *from-to* constructions obey some version of CSC in English and Japanese: Extraction of conjuncts and extraction out of conjuncts are prohibited. This implies that they all share the same structure syntactically. I specifically claim that they are derived via symmetry-breaking movement.