Revisiting Topic-Subject/Object Asymmetry from POP

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This paper revisits how to derive topic-subjects and topic-objects in (1) and (2) from the POP (Problems of Projection) framework of Chomsky (2013, 2015). This paper argues for the claim that unlike topic-objects, topic-subjects lack overt movement to SPEC-C. Specifically, this paper extends the analysis by Tanigawa (2019), claiming that topic-subjects remain in SPEC-T due to the inheritance of a topic feature from C by T. This paper argues that the derivational difference triggers a number of syntactic differences between topic-subjects and topic-objects observed in the embedded clause. Finally, implications are given for invalidity of string-vacuous A'-movement from SPEC-T to SPEC-C.

It is uncontroversial that topic-objects undergo A'-movement to SPEC-C. If the cartographic approach by Rizzi (1997) is elaborated as in (3), this movement is accompanied with agreement of topic features which are assigned to C and topic-objects. One would be tempted to insist that this analysis be given to topic-subjects as in (4), in which the topic-subject moves from SPEC-T to SPEC-C. However, this analysis has difficulty explaining the difference between topic-subjects and topic-objects in anaphor binding shown in (5). The observation of (5) leads Lasnik and Saito (1992) to the claim that topic-subjects remain in SPEC-T while topic-objects are dislocated to the A'-position above TP.

Adopting the POP framework, this paper resurrects the analysis by Lasnik and Saito (1992) and elaborates the analysis by Tanigawa (2019) to propose different derivations for topic-subjects and topic-objects as in (6). As for topic-objects, the standard derivation in (6a) is adopted where topic-objects undergo movement to SPEC-C. Following this movement, an unvalued topic feature [uTop] of topic-objects enters into an agreement relation with a valued counterpart [Top] in C, whereby $\{_{\beta}$ DP, CP$\}$ obtains a label of <Top, Top>. On the other hand, the distinctive derivation in (6b) is proposed for topic-subjects. Topic-subjects remain in SPEC-T rather than move up to SPEC-C, and instead, [Top] is inherited from C by T concomitantly with unvalued φ-features [uφ]. Due to the topic-feature agreement, $\{_{\alpha}$ DP, TP$\}$ receives a label of <Top, Top> in addition to <φ, φ>. It is crucial to note that unlike (6b), the derivation in (7), in which topic-subjects undergo string-vacuous movement from SPEC-T to SPEC-C, is unfeasible due to labeling failure. In the POP framework, agreement and labeling take place at the phase level. The string-vacuous movement at issue fails to induce φ-agreement because topic-subjects, which bear [φ], have been dislocated from SPEC-T at the phase level of C while [uφ] has been inherited by T. Consequently, $\{_{\alpha}$ DP, TP$\}$ remains unlabeled, which causes a crash of the derivation.

This paper extends the analysis in (6) to embedded topicalization by assuming with Watanabe (1993) that embedded topicalization has a CP-recursion structure where C1, which is realized as the complementizer *that*, head-raises to C2 while topicalized phrases are hosted in SPEC-C1. In terms of the POP framework, this paper reformulates the CP-recursion analysis and proposes the analysis in (8) for embedded topicalization. By bearing [uφ] and [Top], C1 counts as the phase head, according to the definition of the phase head as the original locus of features. Topic-objects move up to SPEC-C1 while C1 keeps [Top] and discharges [uφ] to T. Topic-subjects remain in SPEC-T while C1 discharges [Top] and [uφ] to T. In (8a) and (8b), α, which is the complement of the phase head C1, is transferred to the interfaces, whereby α is inaccessible to further operations. Once C2 merges with β, C1 head-raises to C2.

The proposed analysis provides successful accounts for a number of syntactic differences between embedded topic-subjects and topic-objects. The difference regarding anaphor binding in (5) is explained in terms of the Phase Impenetrability Condition of Chomsky (2000). As shown in (9a) and (9b), C1

counts as the phase head, whereby its complement α is transferred to the interfaces. Provided that the local domain of binding is reduced to the phase accessibility, embedded anaphors are accessible to their matrix antecedents only from the phase edge. Since the anaphor *himself* is located in SPEC-C1 only in the case of topic-objects, (9a) but not (9b) observes Binding Condition A. This paper also argues that the subject/object asymmetry in (10) and (11) is attributed to the derivational difference of whether topic phrases are hosted by SPEC-C or SPEC-T. Topic-subjects do not constitute an island for *wh*-movement because SPEC-C1 remains vacant as an escape hatch for *wh*-phrases while this option is unavailable for topic-objects as they occupy SPEC-C1. Topic-subjects and topic-objects are expected to behave differently in extraction by assuming that SPEC-T strictly resists extraction by nature.

The proposed analysis for topic-subjects is in line with Chomsky's (2015) analysis for *wh*-subjects, in which they remain in SPEC-T while the Q-feature is inherited from C by T. This implies that string-vacuous movement from SPEC-T to SPEC-C is banned uniformly in A'-movement in general. If so, focus movement such as negative inversion must be treated on a par, and indeed, this argument is supported by the correspondence between *wh*-questions and negative inversion in Subject-Auxiliary Inversion. The lack of the inversion in (12a) and (13a) can be an effect of the empty C, provided that in these cases, all the features are discharged from C to T and the subjects stay in SPEC-T.

(1) a. Him, Mary likes. (2) a. I think that him, Mary likes. <topic-objects>
b. He likes Mary. b. I think that he likes Mary. <topic-subjects>

(3) [$_{CP}$ him$_{[Top]}$ C$_{[Top]}$ [$_{TP}$ Mary T like $t_{obj.}$]] <topic-objects>

(4) [$_{CP}$ he$_{[Top]}$ C$_{[Top]}$ [$_{TP}$ $t_{subj.}$ T like Mary]] <topic-subjects>

(5) a. John$_i$ thinks that himself$_i$, Mary likes. <anaphor binding>
b. * John$_i$ thinks that himself$_i$ likes Mary. (Lasnik and Saito (1992: 110-111))

(6) a. [$_{\beta}$ him$_{[\text{u}\sout{\text{Top}}]}$ C$_{[\text{u}\varphi][Top]}$ [$_{\alpha}$ Mary$_{[\varphi]}$ T$_{[\text{u}\sout{\varphi}]}$ like $t_{obj.}$]] <topic-objects>
b. [$_{\beta}$ C$_{[\text{u}\varphi][Top]}$ [$_{\alpha}$ he$_{[\varphi][\text{u}\sout{\text{Top}}]}$ T$_{[\text{u}\sout{\varphi}][Top]}$ $t_{subj.}$ like Mary]] <topic-subjects>

(7) *[$_{\beta}$ he$_{[\varphi][\text{u}\sout{\text{Top}}]}$ C$_{[\text{u}\varphi][Top]}$ [$_{\alpha}$ $t_{subj.}$ T$_{[\text{u}\varphi]}$ $t_{subj.}$ like Mary]]

(8) a. I think [$_{\gamma}$ C1$_{[\text{u}\varphi][Top]}$+C2 [$_{\beta}$ him$_{[\text{u}\sout{\text{Top}}]}$ t_{C1} [$_{\alpha}$ Mary$_{[\varphi]}$ T$_{[\text{u}\sout{\varphi}]}$ like $t_{obj.}$]]]
b. I think [$_{\gamma}$ C1$_{[\text{u}\varphi][Top]}$+C2 [$_{\beta}$ t_{C1} [$_{\alpha}$ he$_{[\varphi][\text{u}\sout{\text{Top}}]}$ T$_{[\text{u}\sout{\varphi}][Top]}$ like Mary]]]

(9) a. John think [$_{\gamma}$ C1+C2 [$_{\beta}$ himself$_{[\text{u}\sout{\text{Top}}]}$ $t_{C1[Top]}$ [$_{\alpha}$ Mary$_{[\varphi]}$ T$_{[\text{u}\sout{\varphi}]}$ like $t_{obj.}$]]]
b. John think [$_{\gamma}$ C1+C2 [$_{\beta}$ t_{C1} [$_{\alpha}$ himself$_{[\varphi][\text{u}\sout{\text{Top}}]}$ T$_{[\text{u}\sout{\varphi}][Top]}$ like Mary]]]

(10) a. * What do you think that to him, Mary gave? <island>
b. What do you think that he gave to Mary?

(11) a. ?? Which athletes do you think that pictures of, Mary bought. <extraction>
b. ?*Which athletes do you think that pictures of are on sale. (Lasnik and Saito (1992: 111))

(12) a. Who saw Mary? (13) a. Only Mary likes John. <subjects>
b. Who did John see? b. Only John does Mary like. <objects>

[Selected References] Chomsky, N. (2000) "Minimalist Inquiries: The Framework," *Step by Step*, 89-155. Chomsky, N. (2013) "Problems of Projection," *Lingua* 130, 33-49. Chomsky, N. (2015) "Problems of Projection: Extensions," *Structures, Strategies and Beyond*, 3-16. Lasnik, H. and M. Saito (1994) *Move Alpha: Conditions on Its Application and Output*. Rizzi, L. (1997) "The Fine Structure of the Left Periphery," *Elements of Grammar*, 281-337. Tanigawa, S. (2019) "Eliminating String-Vacuous Movement: C-Deletion and Phasehood Inheritance," *JELS* 36, 295-301. Watanabe, A. (1993) "Larsonian CP Recursion, Factive Complements and Selection," *NELS* 23, 523-537.