Constraints on the Ordering of a Contrastive Topic in English and Japanese

[Introduction] Vermeulen (2013) shows that *wa*-marked topics in Japanese have to occur sentence initially. Contrastive Topics (CTs) are not exceptions for this constraint (CF: Contrastive Focus):

(1) (What about John and Son? What did they bring?)

    a.   Jon-wa$_{CT}$ keeki-o$_{CF}$ mottekita. (Son-wa$_{CT}$ tyoko-o$_{CF}$ mottekita.)

         John-top. cake-acc. brought   Son-top.   chocolate-acc brought

         'John brough the cake. (and Son brough the chocolate.)'

    b.   *Keeki-o$_{CF}$ Jon-wa$_{CT}$ mottekita. (*Tyoko-o$_{CF}$ Son-wa$_{CT}$ mottekita.)

The same applies to cases in which the obj(ect) is the CT and the subj(ect) is the CF as well:

(2) (What about these chocolate and cake? Who brought them?)

    a.   Keeki-wa$_{CT}$ Jon-ga(nom.)$_{CF}$ mottekita…. b. *Jon-ga$_{CF}$ keeki-wa$_{CT}$ mottekita….

Vermeulen argues that this is due to the constraint at the syntax-information structure interface that requires that syntax create the ***[Top(ic) [Com(ment)]] schema***.

[Problematic Data from English] However, it leaves as a mystery the fact that <u>English allows only the Subj$_{CT}$-Obj$_{CF}$ ordering when the context is the same as (1), as shown in (1'), while both the Subj$_{CF}$-Obj$_{CT}$ and the Obj$_{CT}$-Subj$_{CF}$ orderings are allowed in the language under the context of (2), as in (2')</u>:

(1') a.   John$_{CT}$ brought the cake$_{CF}$….   b. *The cake$_{CF}$, John$_{CT}$ brought….

(2') a.   The cake$_{CT}$, John$_{CF}$ brought….   b.   John$_{CF}$ brought the cake$_{CT}$….

If the constraint is mandatory on the surface output, as Vermeulen tacitly assumes, (2'b) should be banned alongside (1'b), contrary to fact. Notice already that Cartography (Rizzi 1997 a.o.) suffers the same problem as there is no non-arbitrary way to assume that English allows only the Obj$_{CT}$ to either move to Spec-TopP or stay in-situ while the relevant movement of the CT is obligatory in Japanese.

[Question] Based on these observations, the question I address is: **[Q]** <u>Why does English allow the CF-CT ordering only in the case of Subj$_{CF}$ and Obj$_{CT}$, while Japanese bans uniformly the CF-CT ordering?</u>

To address **[Q]**, I propose that the [Top [Com]] does indeed work, <u>but it is a constraint at LF</u>, and <u>the actual surface prosodic output must satisfy independent **PF conditions**</u>. I further claim that the relevant PF conditions involve **Chain Reduction** (**CR**) and what Richards (2016) calls **Contiguity**.

[Explaining the English Behaviors] Richards (2016) claims that the *Contiguity* in (3) is required at PF.

(3) <u>If α Agrees with β, α and β must be dominated by a single prosodic node, within which β's prosodically active edge (PAE) is not linearly separated by any other φ.</u>

For instance, Richards argues based on Constant (2014) that English CTs agree with C. Hence, (3) requires that the PAE of the prosodic phrase that corresponds to the CT must be adjacent to the PAE of CP in syntax. Adopting Selkirk's (2009) Match Theory which dictates that each syntactic XP corresponds to a prosodic φ and each syntactic clause to a prosodic ι (above TP), Richards assumes that <u>the English CT's PAE is on the right</u>, which is prosodically evidenced by the L-H* and L-H% contours that φ$_{CT}$ and ι$_{CP}$ bear, respectively. Thus, by (3), the right PAE of φ$_{CT}$ must be adjacent to that of ι$_{CP}$. Therefore, after syntax generates the structure (4a) of (2'a) and sends it to both interfaces, it is converted to (4b) at PF (I assume with Richards that prosodic structures are first constructed based on the syntactic

spine with no Vocabulary Insertion: cf. Halle and Marantz 1993). At LF, the chain of the Obj_{CT} in (4a) is interpreted as the internal argument of the verb at its tail and as the CT at its head based on the [Top [Com]] schema.

(4) a. $[_{CP}$ Obj_{CT} $[C$ $[_{TP}$ $Subj_{CF}$ V-T $Obj_{CT}]]]$ b. $(_{\iota}$ $(_{\varphi}Obj_{CT})$ C $((_{\varphi}Subj_{CF})$ V-T $(_{\varphi}Obj_{CT})))$

In (4b), there are two copies of Obj_{CT} (i.e., *the cake*). I assume with Nunes (2004) a.o. that all but one of the copies must be deleted via CR in order for the sentence to be linearized. I submit that two options are available for this CR in (4b) in a Contiguity-compliant way. One is to delete the head of the chain: if this choice is made, the in-situ φ of the Obj_{CT} satisfies (3) by being adjacent to the right edge of ι which includes C, as in (5a). The other is to apply what Richards (2016) calls *Grouping* to C and the chain head, which groups two prosodic items within a single phrase, converting (4b) to (5b).

(5) a. $(_{\iota}$ $(_{\varphi}\text{Obj}_{\text{CT}})$ C $Subj_{CF}$ V-T $(_{\varphi}Obj_{CT}))$ b. $((_{\iota}$ $(_{\varphi}Obj_{CT})$ C$)$ $(Subj_{CF}$ V-T $(_{\varphi}\text{Obj}_{\text{CT}})))$

In (5b), the tail of the chain is deleted, and C and the head of the chain satisfies (3) via Grouping.

In the case of $Subj_{CT}$ in (1'), the [Top [Com]] is satisfied by default. Thereby, no CR is required and all we need to do is to Group the $Subj_{CT}$ with C at PF, as in (6). In short, no movement that creates (1'b) happens in the first place. Thus, our account explains the English cases of **[Q]** in a principled manner.

(6) $((_{\iota}$ C $(_{\varphi}$ $Subj_{CT}))$ $(V-T$ $(_{\varphi}Obj_{CF})))$

[Explaining the Japanese Behaviors] The behavior of Japanese in (1) can be explained in the same way. No movement of the Obj_{CF} *keeki-o* is required at the narrow syntax, and hence (1b) is out. As for PAEs, I assume with Richards (2016) that Japanese generally activates left edges. The prosodic structure of (1a) depicted in (7) satisfies (3) on the left edge, licensing CT.

(7) $(_{\iota}$ $(_{\varphi}Subj\text{-}wa_{CT})$ $((_{\varphi}Obj\text{-}o_{CF})$ V-T$)$ C$)$

In (2), the [Top [Com]] compliant structure is converted to (8a). At first glance, (8a) seems to have two options for convergence: One is to delete the in-situ CT to derive (2a), and the other is to delete the head and Group C with the tail, yielding the ungrammatical (2b). However, if the latter is taken, the CF becomes extrametrical, as in (8b). As is widely known, CFs must bear the most prominent pitch accent within a given ι (Selkirk 2002). Based upon this, I submit that (2b) is banned because this structure inevitably makes the CF extrametrical, making it impossible to bear the most prominent pitch accent.

(8) a.$(_{\iota}$ $(_{\varphi}Obj\text{-}wa_{CT})((_{\varphi}Subj\text{-}ga_{CF})$ $(_{\varphi}Obj\text{-}wa_{CT})$ V-T$)$C$)$ b.$(_{\varphi}\text{Obj-}wa_{\text{CT}})$ $(_{\varphi}Subj\text{-}ga_{CF})$ $(_{\iota}$ $(_{\varphi}Obj\text{-}wa_{CT})$ V-T$)$C$)$

[Conclusion] Thus, our account solves **[Q]** in a principled way. It is also conceptually desirable, as it complies with Chomsky's (2001) *Strong Uniformity*, assuming syntax and internalization to be invariant and relegating variations to externalization. In this talk, I will also show that it explains why short adverbs such as *kinoo* 'yesterday' can optionally precede a CT in Japanese, based on their inherent extrametricality. Since this particular behavior of short adverbs in Japanese is an issue that Vermeulen (2013) leaves for future research, the present account gains another empirical support.

[References] Chomsky, N. 2001. In *Ken Hale: A Life in Language*, 1–52. MIT Press. / Constant, N. 2014. PhD diss., UMass, Amherst. / Halle, M. & A. Marantz. 1993. In *The View from Building 20*, 111–176. MIT Press. / Nunes, J. 2004. MIT Press. / Richards, N. 2016. MIT Press. / Rizzi, L. 1997. In *Elements of Grammar: Handbook of Generative Syntax*, 281–337. / Selkirk, E. 2002. In *Speech prosody 2002*, 642–646. / Selkirk, E. 2009. In *Gengo Kenkyu* 136, 35–74. / Vermeulen, R. 2013. In *The Linguistic Review* 30(1), 117–159.