

The Completeness of Clausal Structure as a Condition on Phasehood

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The primary purpose of this paper is to make a contribution to solving a long-standing question in phase theory, namely, what categories count as phases, with particular attention to CP-phase. In addition to CP and vP, various other categories have been argued to be phases (see Matushansky 2005 for DP phase, Drummond, Hornstein & Lasnik 2010 for PP phase, and McGinnis 2001 for Applicative Phrase as a phase). The expansion of the phase inventory could be further accelerated in the advent of the split CP hypothesis in the cartographic approach (Rizzi 1997 et seq.), where the domain traditionally referred to as CP consists of several sub-projections. It is not immediately clear which projection(s) count(s) as CP phase. In this paper, we attempt to solve this question by comparing Japanese bridge verb complements and factive verb complements.

Bridge verb complements and factive complements exhibit contrastive behavior with respect to their phasehood: while the former constitute a phase, the latter do not. Various sets of data support this distinction. For example, as pointed out by Uchibori (2000), while scrambling out of the bridge verb complement is not A-movement because the scrambled phrase cannot A-bind the reciprocal element (see (1a)), scrambling out of the factive complement is A-movement. The scrambled phrase can be an A-binder in (1b).

- (1) a. ?*Karera-o_i otagai-no sensei-ga [John-ga t_i hihansita to] itta.
 they-Acc each.other-Gen teacher-Nom John-Nom criticized C said
 ‘Them_i, each other_i’s teachers said that John had criticized t_i.’
 b. Karera-o_i otagai-no sensei-ga [kootyoo-ga t_i suisensita no/koto]-o wasureta.
 they-Acc each.other-Gen teacher-Nom principal-Nom recommended C-Acc forgot
 ‘Them_i, each other_i’s teachers forgot that the principal had recommended t_i.’

This is parallel with the contrast between the finite complement clause (2a) and the raising infinitival clause (2b) in English. Being a phase, the former disallows a constituent to undergo further A-movement. The latter does not form a phase and tolerates further A-movement (Chomsky 2008).

- (2) a. *It appears John_i to be likely [that t_i will be defeated].
 b. It appears that John_i is likely [t_i to be defeated].

Phases and non-phases behave contrastively with respect to reconstruction effects as well. A constituent moving via phase edges can be reconstructed in those positions (Citko 2014; see also Fox 1999, 2000, Lebeaux 2009). Nishigauchi (2002) demonstrates that this is indeed the case with Japanese scrambling out of the bridge verb complement.

- (3) [QP Yamada-sensei-no kurasu-no **nannin-no** gakusei-o] Taro-ga
 Yamada-Ms.-Gen class-Gen how.many-Gen student-Acc Taro-Nom
 [CP • [TP kanozyo_i-ga MIT-e ▲ ik-ase-tagatteiru] to] **omotta** no?
 she-Nom MIT-to go-Caus-want C thought Q
 ‘How many students in Ms. Yamada’s class did Taro think that she wanted to send to MIT?’

(3) is ambiguous. The quantifier ‘many’ may take scope over the attitude verb ‘thought’. This reading is available when the QP is interpreted in its surface position. On the other hand, the attitude verb may also take scope over the quantifier. This reading is available when the QP is reconstructed either in the CP-edge position • or in the base position ▲. Since the reconstruction in ▲ induces a Condition C violation (i.e., *Ms. Yamada* is bound by *she*), only the CP-edge position is available for the inverse scope reading (i.e. *thought* > *many*). This means that the scrambled QP moves via this position, which further indicates that the embedded CP is a phase.

The factive construction, by contrast, does not exhibit the relevant ambiguity and allows only the non-reconstructed reading (i.e. *many* > *knew*).

- (4) [QP Yamada-sensei-no kurasu-no **nannin-no** gakusei-ni] Taro-ga
 Yamada-Ms.-Gen class-Gen how.many-Gen student-Dat Taro-Nom
 [CP • [TP kanozyo_i-ga ▲ manten-o take-tagatteiru] no/koto]-o **sitteita** no?
 she-Nom full.marks-Acc give-want C-Acc knew Q
 ‘How many students in Ms. Yamada’s class did Taro know that she wanted to give full marks?’

The anti-reconstruction suggests that not only the base position ▲ but also the CP-edge position • is not available for interpretation. This in turn means that the scrambled QP does not stop by this position on its way to the final landing site. Such movement is possible if the complement CP is not a phase.

The different phasal status of these complement clauses casts doubt on the view that CPs are universally phases. We propose that a clausal category can be a phase only when it has a full CP structure. While the bridge verb complement satisfies this requirement, the factive clause does not. It consists of an impoverished CP domain in that it has FinP but lacks projections above it.

We also demonstrate that the difference in clause size is reflected in the predicate of each subordinate clause. Predicates in Japanese appear in various forms depending on the grammatical contexts – the phenomenon called conjugation. The predicate in the bridge verb complement appears in what is called the conclusive form, and the one in the factive complement shows up in the adnominal form.

- (5) a. John-wa [Bill-no heya-ga kirei-**da** to] omotta.
 John-Top Bill-Gen room-Nom clean-is.Conclusive C thought
 ‘John thought that Bill’s room was clean.’
 b. John-wa [Bill-no heya-ga kirei-**na** no/koto]-ni odoroitte.
 John-Top Bill-Gen room-Nom clean-is.Adnominal C-at was.surprised
 ‘John was surprised that Bill’s room was clean.’

Following Mihara (2015), we consider that the conjugal form reflects the size of the clause where the predicate occurs. The verb base-generated in V undergoes head movement to various functional heads. If it moves up to Force and is realized there, it shows up in the conclusive form. The verb that moves to Fin and stops there is realized in the adnominal form.

The correlation in question is in part supported by the (im)possibility of the so-called *no da* construction.

- (6) A: John-wa dare-ni yubiwa-o ageta no?
 John-Top who-Dat ring-Acc gave Q
 ‘Who did John give a ring?’
 B: Liz-ga [Mary-ni ageta no **da** to] itteiru yo.
 Liz-Nom Mary-Dat gave Fin is.Conclusive C say Prt
 ‘Liz says that he gave it to Mary.’
 (7) A: John-wa dareka-ni yubiwa-o ageta rasii ne.
 John-Top someone-Dat ring-Acc gave I.hear Prt
 ‘I hear that John gave someone a ring.’
 B: *[Mary-ni ageta no **na** koto]-ga wakatteiru yo.
 Mary-Dat gave Fin is.Adnominal C-Nom is.known Prt
 ‘It is known that he gave a ring to Mary.’ (intended)

The morphemes *no* and *da* are generated in Fin and Foc respectively (Hiraiwa and Ishihara 2012, Saito 2012, Kuwabara 2013). In the well-formed (6B), *da* moves to Force and is realized in the conclusive form. By contrast, since the adnominal-form copular competes with the morpheme *no* for the Fin position, (7B) becomes ungrammatical.

The proposed analysis correctly predicts that not only FinP but also other CP-related projections except ForceP fail to qualify as phases. The factive clause cannot contain a thematic topic (8a). However, topicalization becomes possible on condition that the topic element is construed with the predicate inside the further embedded bridge verb clause (8b) (Nasu 2016; see also Kishimoto 2011). Given that the topic phrase is positioned in Spec-TopP, the factive clause in (8b) is a little larger than the factive clause without topicalization in that it contains TopP above FinP.

- (8) a. *John_i-ga [sono kuruma-**wa** pro_i kizutuketa koto]-o kookaisiteiru.
 John-Nom the car-Top damaged C-at regret
 ‘John regrets that the car, he damaged.’
 b. John-ga [sono kuruma-**wa**_i tomodati-ni [zibun-ga e_i kizutuketa to]
 John-Nom the car-Top friend-Dat self-Nom damaged C
 itta koto]-o kookaisiteiru.
 said C-Acc regret
 ‘John regrets that the car_i, he told his friend that he had damaged e_i.’ (lit.)

Still, the factive clause in (8b) does not form a phase, because it allows A-scrambling: the scrambled phrase A-binds the reciprocal element.

- (9) John to Bill-ni_i [otagai-no sensei]-ga [sono kadai-wa_j Mary-ga e_i
 John and Bill-Dat each.other-Gen teacher-Nom the assignment-Top Mary-Nom
 [e_j muzukasisugiru to] guti-o itta koto]-ni totemo odoroitteiru.
 too.difficult C complaint-Acc said C-at very is.surprised
 ‘Each other’s teachers are very surprised that Mary complained to John and Bill that the assignment was very difficult.’

In conclusion, this paper makes descriptive and theoretical contributions to the study of clausal phases. First, on the basis of phasehood diagnostics proposed in previous studies, we provide a finer classification of complement clauses with respect to their phasehood. Second, paying attention to the structure of right periphery, we demonstrate that only a clause with full CP structure qualifies as a phase. Finally, the proposed analysis makes a correct prediction that the involvement of the Force projection plays a central role in determining the phasehood of a clausal category.

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