On phases and tense dependency: subjunctives and binding

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(Strong) phases are sent off to interpretation as soon as the head of the next phase is merged (Chomsky, 2001 et seq.). If all the features within a phase are valued by the time the head of the next phase is merged, sending the phase to interpretation (Σ) will not pose any problems. However if the embedded clause is dependent on the matrix (the tense in case of infinitives and subjunctives) this transfer to Σ is problematic.

Consider the case of the embedded subjunctive clause. Following Tense-dependency analysis of subjunctives along the lines of Picallo, 1985, T-feature on the embedded v does not get its value until the matrix T is merged into the structure. If one follows standard assumptions that vP and CP are (strong) phases, there are three phase boundaries between the embedded verb and the matrix: embedded vP, embedded CP, and matrix vP. By the time the matrix T is merged into the structure, the embedded vP phase must have been already sent to interpretative component. Notice, that by the time vP was sent to interpretation, T-feature on v was not valued, and the event described in the embedded vP does not yet have a temporal anchoring. Sending unvalued features to the interpretative component must lead to a crash at LF; any sentence with subjunctive embedded clause will be found ungrammatical, contrary to the facts. Similar considerations apply to the infinitival embedded clauses.

In order to resolve this problem, I propose the revision of phase theory. First, when all features within a phase are valued, the phase is sent off to interpretation. I will refer to such phases as complete (Chomsky, 2001).

Second, if all features within a phase are either valued or shared with some outside element (Pesetsky and Torrego, 2007), the phase will be closed for syntactic operations (even though it may not yet be complete). The example of such phase is an embedded subjunctive or infinitival vP. In general, phases with shared features that are still unvalued (e.g. subjunctives) are closed but not complete. I will also maintain that only elements at the edge may participate in further syntactic computation.

Third, I propose the early completeness condition: phases need to be sent off to interpretation as early as possible to minimize computational complexity. For example, this condition explains why embedded subjunctive CP does not have to be sent to interpretation upon merge of the matrix v. This system revises phase theory in order to account for problems mentioned above.

Apart from this revision to the phase theory, I demonstrate how this theory can be applied to binding theory. Similar to Hicks, 2009; Reuland, 2005, I propose that binding is a feature-based phenomenon. I further revise the assumption that subject oriented anaphors move to T (as in Hestvik, 1992): in the current phase theory, anaphors on their way to T need to stop at v position; I propose, that this movement is sufficient to account for their subject orientation (assuming that subjects originate in Spec,vP). So, only in V-raising languages anaphors end up in T.

Together, these assumptions can account for the differences between Russian (1), Icelandic (2), and Italian based on the assumption that in Icelandic and Italian v raises to T, and it does not in Russian, and for the possibility of a long-distance antecedent for local anaphor zibun-żisin in Japanese subjunctives, (3).
(1) **Russian: no long-distance binding in subjunctives**

a. Ivan skazal čto Boris narisoval sebja

   Ivan said that Boris draw self
   ‘Ivan said that Boris drew himself’

b. Ivan xočet čtoby Boris narisoval sebja

   Ivan wants that Boris draw self
   ‘Ivan wants Boris to draw himself’

(2) **Icelandic long-distance anaphors**

a. *Jón veit að María elskar sig*

   John knows that Maria loves him
   ‘John knows that Maria loves him’

b. Jón segir að María elskja sig

   John said that Maria loves self
   ‘John said that Maria loves him’

(3) **Japanese long-distance A-scrambling** (Uchibori, 2000)


   J-NOM committee-NOM self-NOM / he-self -ACC recommend-PAST COMP say/think-PAST

   ‘*John said/thought that the committee recommended himself.’


   J-NOM committee-NOM self-NOM -ACC recommend-NONPAST-SBJ.COMP want-PAST

   ‘*John wants that the committee would recommend himself.’

References


