

The Hidden Syntax of Clausal Complementation in Japanese

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Synopsis: Recent development in the theory of clausal complementation has been observing a radical shift from the traditional Hintikka approach to attitude reports to the one where intensionality is not an attribute of attitude predicates (Kratzer 2006, Moulton 2009, Elliot 2018). In this talk, I will push this trend in Japanese, but crucially, I argue following Saito (2018) and Shimamura (2018) that what introduces an embedded clause is a hidden ‘say’ verb, discussing its consequences.

Some facts of Japanese Complementation and Content Complementizer: In Japanese, attitude reports involve the reporting particle *to*, which has been considered a complementizer in the literature (save Shimamura 2018 among others). However, it has sometimes been pointed out that the complement clause in Japanese behaves like an adverb rather than a noun. Observe:

- (1) Taroo-wa [Hanako-ga kawaii-to] itta. Ziroo-mo soo/*sore-o itta.
Taro-TOP Hanako-NOM cute.is-REP said. Jiro-also so/it-ACC said
‘Taro said that Hanako was cute. Jiro also said so.’
- (2) Taroo-wa [zibun-ga warukatta-to] Hanako-ni tegami-o kaita.
Taro-TOP self-NOM wrong.was-REP Hanako-DAT letter-ACC wrote
‘Taro wrote a letter to Hanako (to tell her) that he was wrong.’
- (3) *[Taroo-ga Ziroo-o sikat-ta-to] watasi-o odorokaseta.
Taro-NOM Jiro-ACC scolded I-ACC surprised
Intended ‘That Taro scolded Jiro surprised me.’

(1) shows that the *pro*-form of the embedded clause is adverbial, not pronominal; also as in (2) the report-clause can be used as an adjunct (Oshima 2017); finally, (3) illustrates that the report-clause cannot be used as a (transitive) subject, and in fact it can only appear in the internal argument position (cf. Baker 2011). One can imagine that *to* is endowed with the semantics parallel to what Kratzer (2006) and Moulton (2009) argue for:

- (4) $[[that]] = \lambda p_{\langle s,t \rangle} . \lambda x_c . \lambda w . \text{CONT}(x_c)(w) = p$
where $\text{CONT} = \{w' : w' \text{ is compatible with the intentional content determined by } x_c \text{ in } w\}$

If so, the report clause is combined with the matrix verb via Predicate Modification (PM) with the proviso that eventualities and individuals are ontologically the same type, the domain of entities D_e (Elliot 2018). This explains the badness of (3): an external argument is introduced by Function Application (FA). However, I contend below that things are somewhat more complex, involving a covert verb SAY, which then yields a couple of nice empirical consequences.

Clausal Stacking: Under the Kratzer/Moulton-style complementation modified a bit by Elliot (2018), the verb and the embedded verb are composed via PM; note that the event type s is in D_e . Then, *that*-clauses are semantically a modifier. However, unlike usual adjectives/adverbs, *that*-clauses cannot be stacked as in (6). This is because the functor $\text{CONT}(s)(w)$ yields contradictory propositional contents, assuming “*that*-clause equates the propositional-content of an eventuality with a set of worlds” (Elliot 2018). In this respect, Japanese behaves differently: report-clauses can be stacked as in (7).

- (5) a. John [_{<e,t>} believes_{<e,t>} [_{<e,t>} that Bill came]].
b. $\lambda w . \exists s . \text{HOLDER}(s)(w) = j \wedge \text{CONT}(s)(w) = \lambda w' . b \text{ came in } w'$
- (6) #Abed believes [_{CP} that Jeff is old] [_{CP} that Shirley is upset]. (Elliot 2018)
- (7) Taroo-wa [Hanako-ga kawaii-to] [kanozyo-wa moteru-to] itta
Taro-TOP Hanako-NOM cute.is-REP she-TOP popular.is-REP said.
Lit. ‘Taro said [that Hanako was cute] [that she was popular (among guys)].’

Therefore, we need to have two independent thematic relations for two report clauses in (7).

Proposal–Covert SAY: Following Saito (2018) and Shimamura (2018), I argue that the report clause is introduced by covert SAY, whose denotation is more like a traditional attitude verb, but it is event-relativized (Hacquard 2006); the attitude holder will be introduced by *v*/Voice (Chomsky 1995, Kratzer 1996).

- (8) $\lambda p.\lambda s.s \text{ in } w^* \wedge \text{SAY}(s) \wedge \forall w \in \text{CON}(s) : p(w)$
 where $\text{CON}(s) = \cap \emptyset = \{p \mid p \text{ is a belief of the agent/experiencer of } s \text{ at } \tau(s)\}$

Here, I am rather sloppy regarding the meaning of SAY. I simply assume that it means something like “expressing”, which can be accompanied with vocal sound or mental representation, so that it is compatible with “saying” as well as “thinking”. Then, the stacked example in (7) is analyzed as in (9). We have three distinct verbs, and VP1 and VP2, each of which has its own independent report-clause, modify the main verb V3. Then, the semantics of (1) will be (10).

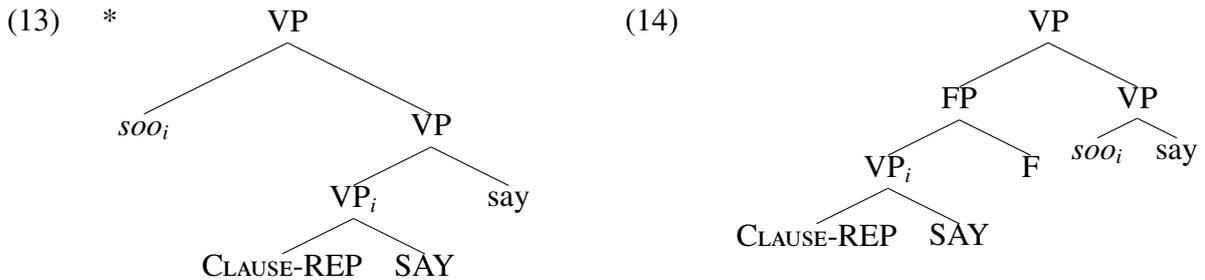
- (9) Taro [_{VP3} [_{VP1} [_{CP} Hanako is cute] SAY_{V1}] [_{VP2} [_{CP} she is popular] SAY_{V2}] said_{V3}]
 (10) $\lambda s[s \text{ in } w^* \wedge \text{say}(s) \wedge [\text{SAY}(s) \wedge \forall w \in \text{CON}(s) : \text{Hanako is cute in } w]]$

In this way, we do not have to assume that individuals and eventualities belong to the same ontological domain, keeping a traditional view to the event semantics (at least in Japanese).

Some Payoffs: First, postulating SAY can explain why the report-clause can behave like an adjunct (2), and why it cannot be an external argument (3). Turning to (1), the *pro*-form is then the referent of VP headed by SAY, a set of eventualities (Tanaka 2015). In this connection, the report-clause and the referring *soo* can in fact cooccur as in (11) (Funakoshi 2014, Sakamoto 2017 *i.a.*); reversing the order of the clause and the adverb leads to ungrammaticality as in (12).

- (11) ... Ziroo-mo [Hanako-ga kawaii-to] **soo** itta.
 Jiro-also Hanako-NOM cute.is-REP so said
 Lit. ‘(Taro said that Hanako was cute.) Jiro also said so: Hanako was cute.’
 (12) *... Ziroo-mo **soo** [Hanako-ga kawaii-to] itta.
 Jiro-also so Hanako-NOM cute.is-REP said
 Intended ‘(Taro said that Hanako was cute.) Jiro also said so: Hanako was cute.’

I contend that this ordering restriction should be explained in terms of Condition C. Starting from the bad example (12), *soo* referring to SAY’s VP adjoins to the main VP as in (13). In contrast, (11) is, I argue, structured as in (14), where I assume that the preceding clause is an adjunct whereas *soo* is syntactically a complement, although both of them are composed via PM. Crucially, the former is introduced not as a bare VP but mediated by a functional head F. For this, since the SAYing event of the adjunct clause is temporally precedes or overlaps that of the complement clause (Oshima 2017), I assume that this temporal relation is due to F (e.g. Asp); in (7), the first clause temporally precedes the second clause, not vice versa.



Lastly, the following control-like construction in Japanese involves the report-clause with the matrix verb being a non-attitude verb, *su-* ‘do’. Observe:

- (15) Taroo-wa [kono mondai-o tokoo-to] sita.
 Taro-TOP this problem-ACC solve.MODAL-REP did
 ‘Taro tried to solve this problem,’

Details aside, one question regarding (15) is why *su-* can select a report-clause since the former cannot be a proposition-taking verb. The answer, under the proposed analysis, is the covert presence of SAY. That is, the matrix VP is modified by the VP headed by SAY. Then, the ‘doing’ event is modified by the event of expressing/SAYing that Taro would solve the problem.

Selected References: Elliot, Patrick, D. 2018. Explaining DPs vs. CPs without syntax. *Proceedings of CLS 52*. Saito, Hiroaki. 2018. (De)categorizing speech. Ms. UConn.