The Hidden Syntax of the Clausal Complementation in Japanese

Koji Shimamura
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Ritsumeikan University
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The purpose of this talk

To argue that the clausal/quotative complementation in Japanese involves a covert speech verb that introduces an embedded clause, and consider its theoretical and empirical consequences.
Specifically, I will discuss the following case of complementation in Japanese:

(1) Taroo-wa [ Hanako-ga kawaii-to ] omot-tei-ru.
    Taro-TOP Hanako-NOM cute.COP.PRES-REP think-ASP-PRES
    ‘Taro thinks that Hanako is cute.’
Introduction

- In the traditional approach, the attitude report has its intensionality as an attribute of the attitude verbs like say, think and believe etc.
- However, recent development of the theory holds that it is not ascribed to the attitude verbs but the complementizer (Elliot 2018, Kratzer 2006, Moulton 2009a,b, 2015).
- I will propose that the clause introduced by the reporting suffix と read as “to” (henceforth, Rep) in Japanese is embedded via an invisible verb, which is a grammaticalized verb, written as SAY in what follows.
The gist is the following:

(2) 

[Diagram showing the structure of VP and lexical attitude predicates]
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- The denotation of \textit{believe} (von Fintel and Heim 2007):

\[(3) \quad [\text{\textit{believe}}] = \lambda p_{(st)} . \lambda x. \forall w' : w R^\beta_x w' \rightarrow p(w') = 1\]

- An alternative view is proposed by Kratzer (2006) and developed by Moulton (2015) among others. Namely, the intensionality (a set of doxastic alternatives) comes from (one instance of) the complementizer \textit{that}:

\[(4) \quad [\text{\textit{that}}] = \lambda p_{<w,t>} . \lambda x_c . \lambda w. \text{cont}(x_c)(w) = p\]

where \text{cont} = \{w' : w' is compatible with the intentional content determined by } x_c \text{ in } w\}

(based on Moulton 2015, 312)
• Under the new approach, attitude verbs like *believe* do not introduce a propositional argument. For the Kratzer/Moulton-style analysis, *believe* selects an individual argument that has some content $x_c$.

(5) $\llbracket \text{believe} \rrbracket = \lambda x_c. \lambda e. \lambda w. \text{believe}(x_c)(e)(w)$ (Moulton 2009a, 170)

• Then, we interpret $\llbracket \text{believe that Bob is a fraud} \rrbracket$.

• Since $\llbracket \text{believe} \rrbracket$ is of type $\langle e, \langle s, wt \rangle \rangle$, and $\llbracket \text{that Bob is a fraud} \rrbracket$ is of type $\langle e, wt \rangle$, we apply Restrict proposed by Chung and Ladusaw (2004), hence:

(6) $\lambda x_c. \lambda e. \lambda w[\text{believe}(x_c)(e)(w) \land [\text{cont}(x_c)(w) = \lambda w' \text{ Bob is a fraud in } w']]$. 
• Alternatively, we can regard eventualities and individuals as ontologically the same as Elliot (2018) assumes, i.e. the domain of entities $D_e$.
• Also, we can assume with Hacquard (2006) that the eventualities are contentful, namely, saying-event or belief-state etc.
• This allows us to render the complete separation of the “internal” argument from the attitude verb (cf. Lohndal 2014).
Then, we have:

\[
(7) \quad \langle et \rangle \rightarrow \text{VP} \rightarrow \langle et \rangle \rightarrow \text{believe} \rightarrow \langle et \rangle \rightarrow \text{CP} \rightarrow \lambda e.\text{believe}(e) \quad \lambda x.\text{cont}(x)(w^*) = \lambda w'. \text{Bob is a fraud in } w'
\]

- \textit{believe} and CP are combined via Predicate Modification (PM).
• The relevant alternative approach has a number of consequences for English. See Kratzer and Moulton’s works.
• What is worth considering here is that the complement clause via *that* is now a modifier, whether it is semantically integrated with the matrix verb by PM or Restrict.
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Since *that*-clause is a modifier, we predict that multiple instances of it is possible just as adjectives and adverbs can be stacked up, e.g. *handsome young man*.
The (Im)possibility of Clausal Stacking

- However, this is impossible. Observe:

  (8)  
  a. *The rumor that Fred was happy, that he was in Paris. (Moulton 2009b, 29)  
  b. *Abed believes [CP that Jeff is old] [CP that Shirley is upset]. (Elliot 2018, 182)
This impossibility of clausal stacking is due to the nature of $\text{cont}$ being a function.

That is, $\text{cont}(x_c)(w) = p$ and $\text{cont}(x_c)(w) = q$, so $p = q$.

However, the two propositions in e.g. (8a) (*that Fred was happy, and that he was in Paris*) cannot be the same.
Now, let us consider whether the same analysis can be carried over to the quotative complementation in Japanese.

Since many people working on Japanese syntax assume that Rep is a complementizer, we may just have the same semantics for Rep that *that* has.
However, this is impossible since Japanese allows clausal stacking as (9) shows:

(9) Taroo-wa [ Hanako-ga kawaii-to ] [ kanozyo-wa
Taro-TOP Hanako-NOM cute.COP.PRES-REP she-TOP
mote-ru-to ] omot-ta
be.liked-PRES-REP think-PAST.
Lit. ‘Taro thought [that Hanako was cute] [that she was popular
(among guys)].’
Note that the stacked clauses are not coordinated since *sarani* ‘furthermore’ that modifies the matrix verb can appear between them:


Lit. ‘Taro thought [that Hanako was cute], furthermore [that she was popular (among guys)].’
• (11) and (12) show that *sarani* is not a conjunctive but an adverb.

(11) Hanako-wa bizin-dasi, (sarani) kanozyo-wa
Hanako-top beautiful.person-cop.conj furthermore she-top
sinsetu-da.
kind-cop.pres
‘Hanko is beautiful, and furthermore she is kind.’

(12) Hanako-wa bizin-dasi, kanozyo-wa (sarani)
Hanako-top beautiful.person-cop.conj she-top furthermore
sinsetu-da.
kind-cop.pres
‘Hanko is beautiful, and furthermore she is kind.’
I will propose an analysis that can capture clausal stacking in Japanese whereas it still complies with the separation of intensionality from the attitude verb.
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- Following H. Saito (2017, 2018a,b) and Shimamura (2016, 2018), I contend that there is an invisible speech verb, SAY, involved in the quotative complementation.
- Simple clausal embedding like (13) is analyzed as in (15).

(13) Taroo-wa [ Hanako-ga kawaii-to ] omot-ta.

‘Taro thought that Hanako was cute.’

(14) 

```
  VP
 /   \
 VP   V
   /   /
  CP  V  think
     /   /
    ...  SAY
```
Proposal: Invisible SAY

- For the semantics of SAY and lexical attitude predicates, I propose the following:

\[
\begin{align*}
(15) & \quad \text{a. } [\text{SAY}] = \lambda p.\lambda e. e \text{ in } w^* \land \text{SAY}(e) \land \forall w \in \text{CON}(e) : p(w) \\
& \text{where } \text{CON}(e) = \cap \emptyset = \{p \mid p \text{ is a belief of the agent/experiencer of } e \text{ at } \tau(e)\} \\
& \text{(cf. Hacquard 2006)} \\
& \quad \text{b. } [\text{think}] = \lambda e. \text{think}(e)
\end{align*}
\]

- I also assume that the meaning of SAY is abstract, only signifying an “expressing” event, so it may involve vocal sound as well as some mental representation. Therefore, it is compatible with a “saying” event and “thinking” state.
One caveat at this juncture: The semantics of SAY in (15a) only works for verbs like *sinzi*- ‘believe’ and *omow*- ‘think’. We need a more “relaxed” semantics of SAY for verbs like *iw*- ‘say’, since we can tell a lie. Maybe, one possible way to go is just to assume that the intensionality is defined by a set of worlds that is compatible with the utterance/expression the matrix subject makes in a given actual context.
One immediate pay-off:

   Taro-TOP  ghost-NOM exist-PRES-REP  believe-ASP-PRES
   ‘Taro believes that ghosts exist.’

b. Taroo-wa obake-o sinzi-tei-ru.
   Taro-TOP  ghost-ACC believe-ASP-PRES
   ‘Taro believes in ghosts.’
The internal argument argument in (16b) is introduced by F (Lohndal 2014).
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I propose that clausal stacking in Japanese is structured as in (18).

(18)

[ Hanako was cute ] SAY [ she was popular ] SAY think

[ AspP ]

[ VP1 ]

[ VP2 ]
I assume that the adjunction of VP1 is mediated by a covert aspectual head Asp. This is because there is a temporal precedence relation between the first clause and the second clause (cf. Oshima 2017).

(19) Taroo-wa [ ima isogasii-to ] #(it-te) yagate
    Taro-NOM now busy/cop.pres-rep say-TE in.short.while
    denwa-o kit-ta.
    telephone-ACC cut-past
    ‘Taro hung up the phone, a while after saying that he was busy.’

(Oshima 2017, 7)
I assume that -te has two possible structural spots, Asp and T. In this connection, Nakatani (2004) argues that -te appears as the past marker when T is not selected by C, whereas Kusumoto (2001) maintains that it can be a participial head (Part), which I assume corresponds to Asp.

(20) Taroo-wa sono yoru moo gohan-o tabe-te-i-te, boku-to Taro-top that night already meal-ACC eat-TE1-COP-TE2 I-with issyoni yuusyoku-ni ika-nakat-ta. together dinner-DAT GO-NEG-PAST
‘Since Taro had already eaten dinner, he didn’t eat out with me that night.’
Due to the presence of Asp, the event argument of the adjunct SAY and that of the main verb are not identified, hence clausal stacking.

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Consider the following contrast:

(22) a. Taroo-wa [ obake-ga i-ru-to ] sinzi-tei-ru.
    Taro-top ghost-nom exist-pres-rep believe-asp-pres
    Ziroo-mo {soo/*sore-o} sinzi-tei-ru.
    Jiro-also so/that-acc believe-asp-pres
    ‘Taro believes that ghosts exist. Jiro also believes so.’

b. Taroo-wa obake-o sinzi-tei-ru. Ziroo-mo {sore-o/*soo}
    Taro-top ghost-acc believe-asp-pres Jiro-also that-acc/so
    sinzi-tei-ru.
    believe-asp-pres
    ‘Taro believes in ghosts. Jiro also believes in them.’
In (22a), *soo* refers to SAY’s VP (cf. HH. Tanaka 2014). In contrast, *sore* in (22b) refers to the object DP. Therefore, this contrast is also naturally captured by severing the internal argument, be it clausal or nominal, from the attitude predicate.

- Interestingly, *soo* and its associated clause can cooccur.
- The *clause-soo* order is fine, but the opposite order is bad (Funakoshi 2014, Sakamoto 2016a,b, HK. Tanaka 2008).
   Taro-top ghost-nom exist-pres-rep so believe-asp-pres
   Lit. ‘Taro believes so: that ghosts exist.’

   Taro-top so ghost-nom exist-pres-rep believe-asp-pres
   Lit. ‘Taro believes so: that ghosts exist.’

- I argue that (23b) is bad due to Condition C.
The grammaticality of (23a) is explained as follows:

(24)
The ungrammaticality of (23b) is explained as follows:
I assume that *soo* is replaced by the antecedent VP at LF. Therefore, the LF-representations of (23a) and (23b) are:

\[(26)\]

\[\text{a. } \left[ \text{VP} \left[ \text{AspP} \left[ \text{VP} \left[ \text{CP ghosts exist ] SAY ] Asp ] [\text{VP}ight. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \right. \r
• Condition C for VP? \(\leadsto\) Schlenker’s (2005) Condition C:

(27) **Minimize Restrictors!**

A definite description *the A B* [where order of *A* and *B* is irrelevant] is deviant if *A* is redundant, i.e. if:

a. *the B* is grammatical and has the same denotation as *the A*, and

b. *A* does not serve another purpose.

(Schlenker 2005, 391)
Let’s assume that the set of eventualities VP denotes is $\iota$-closed at TP.

(28) a. \( \textit{the} \ (\underbrace{[\text{VP}]\ [\text{AspP}]\ [\text{VP}]\ [\text{CP} \text{ ghosts exist }]\ [\text{SAY}]\ [\text{Asp}]\ (\text{believe })}) \)

\( \underbrace{[\text{VP}]\ [\text{VP}]\ [\text{CP} \text{ ghosts exist }]\ [\text{SAY}]\ \text{believe }} \)

b. \( \ast \textit{the} \ (\underbrace{[\text{VP}]\ [\text{VP}]\ [\text{CP} \text{ ghosts exist }]\ [\text{SAY}]\ (\text{believe })}) \)

\( \underbrace{[\text{VP}]\ [\text{VP}]\ [\text{CP} \text{ ghosts exist }]\ [\text{SAY}]\ \text{believe }} \)
Pro-form of the Quotative Clause

- One prediction: if *soo* preceding the quotative complement has a different index, it allows the *soo-clause* order. This is indeed borne out.

(29) a. Taro-**wa** [ Hanako-**ga** kawaii-**to** ] [ kanozyo-**wa** mote-ru-**to** ] it-ta
    Lit. ‘Taro said [that Hanako was cute] [that she was popular (among guys)].’

b. Ziroo-**mo soo** [ kanozyo-**wa** mote-ru-**to** ] it-ta
    Lit. ‘Jiro also said so (= that Hanako was cute) that she was popular (among guys).’
(29) is derived as follows:

(30)  
(29a): \[ [\text{VP} [\text{AspP} [\text{VP} [\text{CP} \ldots \text{C}] \text{SAY}] \text{Asp}]] [\text{VP} [\text{CP} \ldots] \text{SAY}] \text{say} ] \ldots

(29b): \[ [\text{VP} \text{soo} [\text{VP} [\text{CP} \ldots] \text{SAY}] \text{say} ] \ldots \]

LF-replacement
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There are numerous languages where a (grammaticalized) speech verb is used to introduce an embedded clause. E.g. *dien* in Sakha (Baker 2011):

(31)  

    Sardaana today Aisen come-*aor.3sg.s* that *hear-*past.*3sg.s*  
    ‘Sardaana heard that Aisen is coming today.’

b. *[ Saaska Baaska-ny üöx-te dien ] bihigi-ni  
    Saaska Baaska-*acc scold-*past.*3sg.s* that *us-*acc  
    sohup-put-a.  
    surprise-*ptpl-3sg.s*  
    Intended ‘That Saaska scolded Baaska surprised us.’
dxomuj-da.
clean-PAST.3SG.S

Intended ‘Masha cleaned the house with (immediately after) Misha left.’

d. [ Masha ehiil Moskva-qa bar-ya dien ]
Masha next.year Moscow-DAT go-FUT.3SG.S that
cuolkajdan-na.
become.certain-PAST.3SG.S

‘It became clear that Masha will go to Moscow next year.’

(Baker 2011, 1169)
Japanese does the same:

    Taro-top tomorrow Jiro-nom come-pres-rep hear-past
    ‘Taro head that Jiro will come tomorrow’

b. *[ Taroo-ga Ziroo-o sikat-ta-to ] watasi-o odorok-ase-ta.
    Taro-nom Jiro-acc scold-past-rep I-acc surprise-caus-past
    Intended ‘That Taro scolded Jiro surprised me.’
(33) c *Taroo-wa [ Ziroo-ga kaet-ta-to ]-kara heya-o soozisi-ta.
Taro-top Jiro-nom leave-past-rep -from room-acc clean-past
Intended ‘Taro cleaned the room because Jiro left.’

d [ Taroo-ga ku-ru-to ] omow-are-ru.
  Taro-nom come-pres-rep think-pass-pres
‘It seems that Taro will come.’
• The *dien*-clause, just like the Rep-clause, can also be used as an adjunct:

(34)  

Masha you come-FUT-2SG.s that house-ACC tidy-PAST.3SG.s  
‘Masha tidied up the house (thinking) that you would come.’  
(Baker 2011, 1170)  

b. Taroo-wa [ Hanako-ga ku-ru-n-da-to ] haya-o  
Taro-TOP Hanako-NOM come-PRES-NMLZ-COP-REP room-ACC  
kirei-ni si-ta.  
beauty-COP.INF do-PAST  
‘Taro cleaned his room because Hanako is coming.’
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I have argued:

- The quotative clause in Japanese is covertly introduced by SAY.
- Internal arguments including propositional clauses should be severed from the verb.
- The behavior of *soo* for the *pro*-form of the quotative clause is straightforwardly understood under the current analysis.
Some remaining issues:

- The relevance of (35):

  (35)  [ Taroo-ga Kyooto-ni ku-ru-to ] iw uwasa
        Taro-nom Kyoto-to come-pres-rep SAY.pres rumor
        ‘the rumor that Taro will come to Kyoto’

- Why is SAY obligatorily overt in (35) whereas it is obligatorily covert in the quotative complementation? See Shimamura (2018).

- However, the colloquial version of Rep (tte) behaves differently (Shimamura 2018):

  (36)  [ Taroo-ga Kyooto-ni ku-ru-tte ] (iw) uwasa
        Taro-nom Kyoto-to come-pres-rep         rumor
        ‘the rumor that Taro will come to Kyoto’
Thank you for listening!


von Fintel, Kai, and Irene Heim. 2007. Intensional semantics. Lecture notes, MIT.


Moulton, Keir. 2009b. Natural selection and the syntax of clausal complementation. Doctoral Dissertation, University of Massachusetts, Amherst, MA.


