# The Hidden Syntax of the Clausal Complementation in Japanese

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#### **Outline**

#### Introduction

Severing Intensionality from the Attitude Verb

The (Im)possibility of Clausal Stacking

Proposal: Invisible SAY

Explaining Clausal Stacking in Japanese

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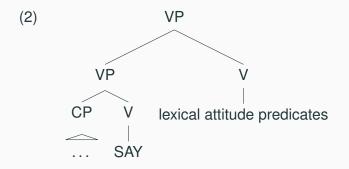
The purpose of this talk -

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-тор Hanako-noм cute.cop.pres-rep think-asp-pres 'Taro thinks that Hanako is cute.'

- 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  $\succeq$  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:



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The denotation of believe (von Fintel and Heim 2007):

(3) **[believe]** = 
$$\lambda p_{\langle st \rangle} . \lambda x. \forall w' : w R_x^{\beta} w' \rightarrow p(w') = 1$$

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

(based on Moulton 2015, 312)

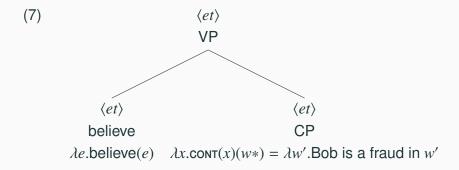
Under the new approach, attitude verbs like believe do not introduce a
propositional argument. For the Kratzer/Moulton-style analysis, believe
selects an individual argument that has some content x<sub>c</sub>.

(5) **[believe]** = 
$$\lambda x_c . \lambda e . \lambda w$$
. believe( $x_c$ )( $e$ )( $w$ ) (Moulton 2009a, 170)

- Then, we interpret [believe that Bob is a fraud].
- Since [believe] is of type  $\langle e, \langle s, wt \rangle \rangle$ , and [that Bob is a fraud] is of type  $\langle e, wt \rangle$ , we apply Restrict proposed by Chung and Ladusaw (2004), hence:
  - (6)  $\lambda x_c . \lambda e . \lambda w$ [believe $(x_c)(e)(w) \wedge [\text{cont}(x_c)(w) = \lambda w']$  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:



• 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.

- 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 cont being a function.
- That is,  $cont(x_c)(w) = p$  and  $cont(x_c)(w) = q$ , 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-тор Hanako-noм cute.cop.pres-пер she-тор mote-ru-to ] omot-ta be.liked-pres-пер 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:

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(10) Taroo-wa [ Hanako-ga kawaii-to ] sarani [
Taro-тор Hanako-nom cute.cop.pres-rep furthermore
kanozyo-wa mote-ru-to ] omot-ta
she-тор be.liked-pres-rep think-past.
Lit. 'Taro thought [that Hanako was cute], furthermore [that she was popular (among guys)].'
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- (11) and (12) show that *sarani* is not a conjunctive but an adverb.
  - (11) Hanako-wa bizin-dasi, (sarani) kanozyo-wa Hanako-тор beautiful.person-сор.сому furthermore she-тор sinsetu-da. kind-сор.рвев 'Hanko is beautiful, and furthermore she is kind.'
  - (12) Hanako-wa bizin-dasi, kanozyo-wa (sarani)
    Hanako-тор beautiful.person-сор.сому she-тор furthermore sinsetu-da.
    kind-сор.ряев
    '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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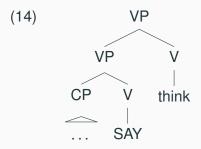
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- Following H. Saito (2017, 2018a,b) and Shimamura (2016, 2018), I contend that there is an invisible speech verb, SAY, involved in the quotative complementation.
- Simple clausal embedding like (13) is analyzed as in (15).
  - (13) Taroo-wa [ Hanako-ga kawaii-to ] omot-ta. Taro-тор Hanako-мом cute.cop.pres-пер think-раст 'Taro thought that Hanako was cute.'



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

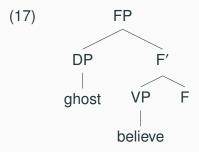
- (15) a.  $[\![ SAY ]\!] = \lambda p.\lambda e.e$  in  $w^* \wedge SAY(e) \wedge \forall w \in con(e) : p(w)$  where  $con(e) = \cap \wp = \{p \mid p \text{ is a belief of the agent/experiencer}$  of e at  $\tau(e)\}$  (cf. Hacquard 2006)
  - b.  $[think] = \lambda e.think(e)$
- I also assume that the 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 contex.

- One immediate pay-off:
  - (16) a. Taroo-wa [ obake-ga i-ru-to ] sinzi-tei-ru.

    Таго-тор ghost-noм exist-pres-rep believe-аsp-pres
    'Taro believes that ghosts exist.'
    - b. Taroo-wa obake-о sinzi-tei-ru. Taro-тор 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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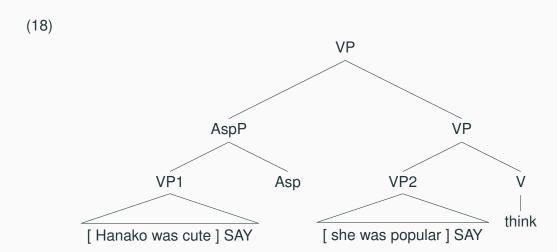
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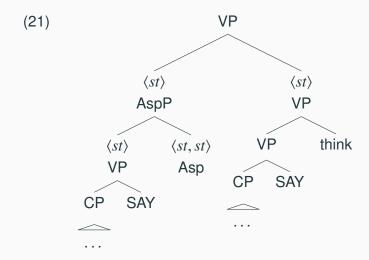
• I propose that clausal stacking in Japanese is structured as in (18).



- 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).
  - Taroo-wa [ ima isogasii-to ] #(it-te) yagate
    Таro-ном now busy.cop.pres-пер say-те in.short.while
    denwa-o kit-ta.
    telephone-acc cut-раст
    '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-тop that night already meal-acc eat-тe1-cop-тe2 l-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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#### **Pro-form of the Quotative Clause**

Consider the following contrast:

- (22) a. Taroo-wa [ obake-ga i-ru-to ] sinzi-tei-ru.

  Taro-тор 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}
     Таго-тор 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.'

#### **Pro-form of the Quotative Clause**

- 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).

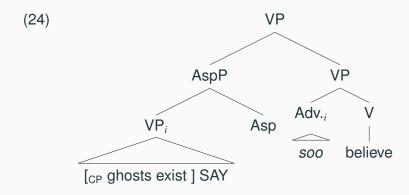
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- (23) a. Taroo-wa [ obake-ga i-ru-to ] soo sinzi-tei-ru.

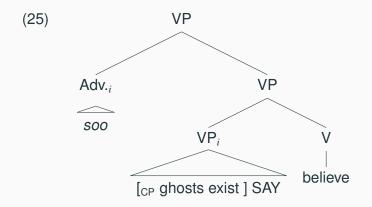
  Taro-top ghost-nom exist-pres-rep so believe-asp-pres
  Lit. 'Taro believes so: that ghosts exist.'
  - b. \*Taroo-wa soo [ obake-ga i-ru-to ] sinzi-tei-ru.

    Таrо-тор so ghost-noм exist-pres-пер believe-аsp-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:



• 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:

 I also assume that soo can only replace an item of type (st) (cf. HH. Tanaka 2014).

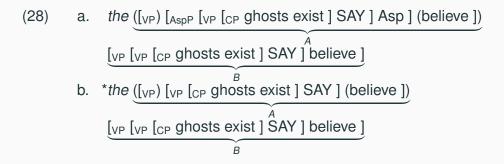
- Condition C for VP? → Schlenker's (2005) Condition C:
  - (27) MINIMIZE RESTRICTORS!

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.



• 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. Taroo-wa [ Hanako-ga kawaii-to ] [ kanozyo-wa Taro-тор Hanako-nom cute.cop.pres-rep she-тор mote-ru-to ] it-ta be.liked-pres-rep say-past.

  Lit. 'Taro said [that Hanako was cute] [that she was popular (among guys)].'
  - b. Ziroo-mo soo [ kanozyo-wa mote-ru-to ] it-ta Jiro-тор so she-тор be.liked-ряез-яер say-раsт. Lit. 'Jiro also said so (= that Hanako was cute) that she was popular (among guys).'

• (29) is derived as follows:

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(30) (29a): ...[VP [AspP [VP [CP ... C ] SAY ] Asp ] [VP [CP ...] SAY ] say ] ... (29b): ...[VP soo [VP [CP ...] SAY ] say ] ... 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) a. Sardaana [ büün Aisen kel-er dien ] ihit-te.
    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.'

- c. \*Masha [ Misha bar-da dien ] kytta djie-ni
  Masha Misha leave-PAST.3sg.s that with house-ACC
  xomuj-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:

- (32) a. Taroo-wa [ asita Ziroo-ga ku-ru-to ] kii-ta.

  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 l-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-тор 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) a. Masha ehigi kel-iex-xit dien djie-ni xomuj-da.

    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)
    - Б. Тагоо-wa [ Hanako-ga ku-ru-n-da-to ] haya-о
       Таго-тор Напако-мом соте-ряев-ммг-сор-пер гоот-асс
       kirei-ni si-ta.
       beauty-сор. иг do-равт
       '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.

## Conclusion

## Some remaining issues:

- The relevance of (35):
  - (35) [ Taroo-ga Kyooto-ni ku-ru-to ] iw uwasa Taro-noм 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-Noм Kyoto-to come-pres-rep rumor 'the rumor that Taro will come to Kyoto'

# Thank you for listening!

### References i

- Baker, Mark C. 2011. Degrees of nominalization: Clause-like constituents in Sakha. *Lingua* 121:1164–1193.
- Chung, Sandra, and William Ladusaw. 2004. *Restriction and saturation*. Cambridge, MA: MIT Press.
- Elliot, Patrick D. 2018. Explaining DPs vs. CPs without syntax. In *Proceedings* from the Anual Meeting of the Chicago Linguistic Society, volume 52, 171–185. Chicago, IL: Chicago Liguistic Society.
- von Fintel, Kai, and Irene Heim. 2007. Intensional semantics. Lecture notes, MIT.
- Funakoshi, Kenshi. 2014. Syntactic head movement and its consequences. Doctoral Dissertation, University of Maryland, College Park, MD.

### References ii

- Hacquard, Valentine. 2006. Aspects of modality. Doctoral Dissertation, Massachusetts Institute of Technology, Cambridge, MA.
- Kratzer, Angelika. 2006. Decomposing attitude verbs. URL
  http://semanticsarchive.net/Archive/DcwY2JkM/
  attitude-verbs2006.pdf., ms. University of Massachusettes, Amherst.
- Kusumoto, Kiyomi. 2001. The semantics of non-past -ta in Japanese. In Proceedings of the Third Formal Approach to Japanese Linguistics (FAJL3), ed. María Cristina Cuervo Daniel Harbour, Ken Hiraiwa, and Shinichiro Ishihara, 163–180. Cambridge, MA: MIT Working Papers in Linguistics.
- Lohndal, Terje. 2014. *Phrase structure and argument structure: A case study of the syntax-semantics interface*. Oxford: Oxford University Press.

### References iii

- Moulton, Keir. 2009a. Clausal complementation and the *wager*-class. In *Proceedings of the 38th North East Linguistic Society*, ed. Anisa Schardl, Martin Walkow, and Muhammad Abdurrahman, volume 2, 165–178. Amherst, MA: GLSA, University of Massachusetts.
- Moulton, Keir. 2009b. Natural selection and the syntax of clausal complementation. Doctoral Dissertation, University of Massachusetts, Amherst, MA.
- Moulton, Keir. 2015. CPs: Copies and compositionality. *Linguistic Inquiry* 46:305–342.
- Nakatani, Kentaro. 2004. Predicate concatenation: A study of the V-*te*-V predicate in Japanese. Doctoral Dissertation, Harvard University, Cambridge, MA.

## References iv

- Oshima, David Yoshikazu. 2017. Shuyobu o motanai nihongo juuzokusetsu: "site/itte/omotte" no fuzai [Japanese subordinate clauses without a head: The non-occurrence of DO, SAY, and THINK]. Gengo Kenkyuu 151:1–35.
- Saito, Hiroaki. 2017. Like/type, say, and C. In *Proceedings of GLOW in Asia XI*, ed. Michael Yoshitaka Erlewine, volume 2, 163–177. Cambridge, MA: MIT Working Papers in Linguistics.
- Saito, Hiroaki. 2018a. (De)categorizing speech. Ms. University of Connecticut.
- Saito, Hiroaki. 2018b. Saying hiddenly. Ms. University of Connecticut.
- Sakamoto, Yuta. 2016a. Escape from clausal complement anaphora sites in Japanese. Ms. University of Connecticut, Storrs CT.

### References v

- Sakamoto, Yuta. 2016b. Clausal complement "replacement". In *Proceedings of FAJL 8: Formal Approaches to Japanese Linguistics*, ed. Shintaro Hayashi, Satoshi Ito, and Ayaka Sugawara, 109–120. Cambridge, MA: MIT Working Papers in Linguistics.
- Schlenker, Philippe. 2005. Minimize restrictors! (Notes on definite descriptions, condition C and epithets. In *Proceedings of Sinn und Bedeutung*, ed. Emar Maier, Corien Bary, and Janneke Huitink, volume 9, 385–416.
- Shimamura, Koji. 2016. On the internal and external syntax of report in Japanese. In *The Proceedings of Seoul International Conference on Generative Grammar*, volume 18, 535–554.

### References vi

Shimamura, Koji. 2018. The theory of quotative complementation in Japanese semanticosyntax. Doctoral Dissertation, University of Connecticut, Storrs, CT.

Tanaka, Hideharu. 2014. The derivation of soo-su: Some implications for the architecture of Japanese VP. In Proceeding of Japanese/Korean linguistics 23, ed. Michael Kenstowicz, Ted Levin, and Ryo Masuda, 265–279. Stanford, CA: CSLI Publications.

Tanaka, Hidekazu. 2008. Clausal complement ellipsis. Ms, University of York.