The Size of the Complement – The Properties of the Embedded -*Yoo* in Japanese[*]

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1 Introduction

In this paper, we investigate one specific case of clausal complementation in Japanese, which has been argued to involve obligatory Control, namely, the one with the volitional modal -*yoo*, which expresses the speaker's will or determination, embedded (Fujii 2006, 2010; cf. Takano 2010, Uchibori 2000).[1] To be more specific, we are exclusively concerned with the two constructions Fujii analyzes as Subject Control (SC) and Split Control (SpC). Below, I show that his analysis is empirically inadequate in failing to capture the fact that the attitude holder of the embedded -*yoo* and the agent of the embedded verb can be different, and propose that apparent Control-like cases involving -*yoo* are derived by indexical shifting. I also show that the size of the embedded clause can be different in accordance with the selection of a matrix verb. That is, when a given matrix verb is proposition-taking, its embedded clause

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[*] I thank Yuta Sakamoto and Hideharu Tanaka for comments and discussion. This research is funded by JSPS KAKENHI (20K13017), so I hereby acknowledge it.

[1] In what follows, we will be concerned with obligatory Control but not nonobligatory Control. Whenever I use the term Control, I intend to refer to the former.

is full-fledged CP, but when the former is event-taking such as 'try', the latter can be as small as *v*P. This sort of semantic correlation between the size of a complement clause and the choice of a matrix verb is proposed by Wurm-brand and Lohninger (2019), who term it the Implicational Complementation Hierarchy (ICH), and I argue that this state of affairs also holds for the *-yoo* complementation in Japanese.

This paper is organized as follows. In Section 2, we go over the analyis of the alleged SC and SpC by Fujii (2006, 2010), raising some empirical issues of it. Then, in Section 3, I propose that the pertinent SC/SpC-like construc-tions are derived by indexical shifting of the lexically specified 1st-person feature of *-yoo*, giving a way to semantically compute the embedded *-yoo* complement, and Section 4 discusses the *-yoo* complementation in terms of the ICH, showing that the different sizes of complement clauses lead to sev-eral different syntactic/semantic behaviors of them. Section 5 concludes.

2 The Properties of (Embedding) the Modal *-Yoo*

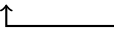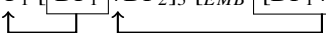### 2.1 Fujii (2006, 2010) – the Movement Theory of Control

Let us start our discussion by looking at typical examples of the relevant two constructions rendered by embedding *-yoo*; (1a) exemplifies SC, and (1b), SpC. In (1), the embedded null arguments are given as *e*, which allows me to be theory-neutral.

(1) a. Hirosi$_1$-wa [e_1 {??kare$_1$/zibun$_1$}-o hihan-si-yoo-to   ]
        Hiroshi-TOP   he/self-ACC   criticism-do-MOD-REP
        {omot-ta/kessin-si-ta}.
         think-PAST/determination-do-PAST
        'Hiroshi {thought of criticizing/decided to criticize} {??him/himself}.'
     b. Taroo$_1$-wa Hirosi$_2$-ni   [e_{1+2} otagai-o
        Taro-TOP Hiroshi-DAT   each.other-ACC
        sonkee-si-a-oo-to   ] {it-ta/teian-si-ta}.
        respect-do-RECIP-MOD-REP   say-PAST/proposal-do-PAST
        Lit. 'Taro$_1$ {said/proposed} to Hiroshi$_2$ that e_{1+2} respect-*yoo* each other.'

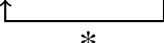   (based on Fujii 2006, 102, 115)

In (1a), e_1 corefers to the matrix subject, so that a Condition B effect is ob-served with a pronominal object, and Fujii (2006) contends that e_1 is bound by the matrix subject (but see discussion below on Condition B in Japanese). In (1b), the embedded verb is reciprocalized, and it thus requires a plural sub-ject (see Fujii 2006, Ch. 3.2 for the detail of reciprocalization). Therefore, he also argues that e_1 is bound by the matrix subject and the matrix indirect object in a split fashion.

Adopting the Movement Theory of Control (MTC) (Hornstein 1999), Fujii (2006, 2010) proposes that (1a) and (1b) are derived as in (2a) and (2b), respectively.

(2)　　a.　$[_{MAT}$ DP$_1$ $[_{EMB}$ DP$_1$ V-MOD-REP] V]

　　　　b.　$[_{MAT}$ DP$_1$ [DP$_1$ +DP$_2$]$_3$ $[_{EMB}$ [DP$_1$+DP$_2$]$_3$ V-MOD-REP] V]

The matrix subject in (2a) is first merged as the agent argument of the embedded domain (*EMB*), and it is moved to the matrix domain (*MAT*), functioning as the matrix agent argument. Thus, it takes up two θ-roles (more precisely, checks two θ-features) in moving from the embedded domain to the matrix domain.[2] In principle, the same holds for (2b), but it involves a slightly more complex movement. As (2b) illustrates, the embedded agent starts out as the amalgam of two conjoined DPs, and it is "split up" en route to the final landing site (as the term "Split Control" alludes to), so that only DP$_1$ moves to check the matrix agent role.[3]

Then, what Fujii's (2006) analysis predicts is that when there is an intervener between the base position of a moving DP to its final landing site, Control is excluded; that is, the configuration in (3) is predicted to be ungrammatical.

(3)　　$[_{MAT}$ DP$_1$ DP$_2$ $[_{EMB}$ DP$_1$ V-MOD-REP] V]

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In (3), DP$_1$ moves to the matrix domain by skipping DP$_2$ (which presumably is a dative goal), and this violates the locality/minimality of movement. For the impossibility of (3), Fujii (2006) gives the following:

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[2] I am not concerned with the details of the relevant movement steps, which are orthogonal to the main discussion of this paper.

[3] This analysis brings up several issues, some of which Fujii (2006) is aware. I will not discuss them in detail since they are irrelevant to the purpose of this paper, and what is more, I do not adopt the MTC analysis in this paper. However, one potential challenge I point out at this juncture concerns the movement step of the conjoined DPs to the indirect object position, which Fujii assumes is motivated by θ-checking one of them (i.e. DP$_2$) against the goal role. If the entire DP$_1$+DP$_2$ were to enter into such a θ-checking process, the predicted construal would mandate that DP$_1$ also be interpreted as part of the goal argument, contrary to fact. Then, he assumes that DP$_1$ does not get the goal role since it is moved alongside DP$_2$ via pied-piping. Then, whatever principle/structure would allow pied-piping of DP$_1$, the entire DP$_1$+DP$_2$, before movement, should have been merged to the embedded agent position (e.g. Spec-vP) in such a way that DP$_1$ is allowed not to be θ-checked against any θ role. Then, the question is why DP$_1$ must get the embedded agent role while it can avoid getting the matrix goal role. It seems that he does not provide any solutions to this issue.

(4) a. *Taroo$_1$-wa Yooko-ni [e_1 kanozyo-o sonkei-si-yoo-to   ]
         Taroo-TOP Yoko-DAT   she-ACC   respect-do-MOD-REP
         it-ta.
         say-PAST
         Lit. 'Taro$_1$ said to Yoko e_1 to respect her.'
     b. Taroo$_1$-wa [e_1 kanozyo-o sonkei-si-yoo-to   ] omot-ta.
         Taroo-TOP   she-ACC respect-do-MOD-REP think-PAST
         Lit. 'Taro$_1$ thought e_1 to respect her.'

                                        (based on Fujii 2006, 129)

Fujii takes (4a) as a case of (3). The grammatical judgment in (4a) is due to
him, but I do not find its deviancy as severe as he observes; for me (and my
language consultants), ? or ?? at worst. Since there is no use disputing over
the different grammaticality judgments, I would like to point out one potential
problem in (4a), which is irrelevant to Control. As Kuroda (1965) discusses,
overt pronouns in Japanese are different from those in English. Observe:

(5) Kesa   Taroo-wa kinoo   {*pro*/?(?)kare-ga} at-ta
     this.morning Taro-TOP yesterday *pro*/he-NOM   see-PAST
     zyosee-ni   {*pro*/?(?)kare-no} syokuba-de   mata at-ta.
     woman-DAT   *pro*/he-GEN   workplace-in again see-PAST
     'This morning, Taro met the woman again in his workplace who he
     met yesterday. '

In (5), null pronouns are preferred to their overt counterparts, and overt pro-
nouns behave like R-expressions as follows:

(6) Kesa   Taroo-wa kinoo   ?(?)Taroo-ga at-ta
     this.morning Taro-TOP yesterday   Taro-nom see-PAST
     zyosee-ni   ?(?)Taroo-no syokuba-de   mata at-ta.
     woman-DAT   Taro-GEN workplace-in again see-PAST
     'This morning, Taro met the woman again in Taro's workplace who
     Taro met yesterday. '

Given (5) and (6), only *pro* is functionally equivalent to pronouns in English.
In this respect, it is also notable that overt pronouns in Japanese cannot be
used as bound variables (Hoji 1985, 1991); Hoji (1991) claims that overt pro-
nouns behave in the same way as demonstratives, which then explains why
they cannot get bound variable interpretations. If he is on the right track, then
overt pronouns like *kare* 'he' are construed like 'this/that man', so that the
badness of (4a) is due to Condition C. Namely, *Yoko* and *kanozyo* cannot be
co-indexed there. As I said, I find that it is not totally bad but only marginal,
and this can be explained in terms of an unexpected state of affairs where

both *Yooko* and *kanozyo* accidentally refer to the same individual (without binding). Then, we predict that if an embedded object that is co-indexed with a matrix goal argument is *pro* (3) becomes implementable, which is the case:

(7) a. Taroo$_1$-wa Yooko$_2$-ni [e_1 *pro$_2$* sonkei-si-yoo-to   ] it-ta.
         Taroo-TOP Yoko-DAT   *pro* respect-do-MOD-REP say-PAST
         Lit. 'Taro$_1$ said to Yoko$_2$ e_1 to respect *pro$_2$*.'
     b. Taroo$_1$-wa Hanako$_2$-ni [e_1 *pro$_2$* Kyooto-ni
         Taroo-TOP Hanko-DAT   *pro* Kyoto-to
         turete-ik-oo-to   ] it-ta.
         take.CONJ-go-MOD-REP   say-PAST
         Lit. 'Taro$_1$ said to Hanako$_2$ e_1 to take *pro$_2$* to Kyoto.'

I thus conclude that the SC configuration with a matrix goal argument is possible. If (3) is an option, the MTC-style analysis cannot be adopted as it is.

Before leaving the discussion on Fujii (2006, 2010), let us discuss two more properties he provides to support his claim that embedding *-yoo* is a case of Control. First, Fujii (2006) observes that the volitional content of the embedded clause in (8) must be interpreted as *de se* relative to the matrix subject, so that the given context is not compatible with (8).

(8) CONTEXT: Hiroshi planned to go abroad. He had already got his passport and made a visa available recently. One day, he went to drinking and came home badly drunk. He found the passport on the table, without remembering that this was what he himself got from the embassy. Looking at the picture on the passport and the visa, he thinks, "I don't know who this guy is, but he seems to be planning to go abroad soon. I wish I could!"

     #Hirosi$_1$-wa [e_1 gaikoku-ni   ik-oo-to   ]
     Hiroshi-TOP   foreign.country-to go-MOD-REP
     omot-te-i-ru.
     think-ASP-COP-PRES
     'Hiroshi thinks of going abroad.' (Fujii 2006, 106)

(8) is a case of SC under Fujii's analysis, and it is well known for the fact that it only allows the *de se* interpretation. Then, (8) can be taken as a piece of evidence that supports his Control analysis.

Second, associating the antecedent DP with its PRO (a moved trace in the MTC) in the Control configuration can only traverse one clause boundary:

(9) *John thinks that it was expected PRO to shave himself. (Hornstein 1999, 73)

Then, concerning the ban on this sort of "long-distance" Control in Japanese, Fujii (2006) gives (10), where the highest subject cannot be the antecedent of the silent subject in the most embedded clause.

(10) *Karera$_1$-wa [Hirosi-ni   [e_1 otagai-o
       they-TOP   Hiroshi-DAT   each.other-ACC
       naguri-a-oo-to   ] omow]-ase-ta.
       hit-RECIP-MOD-REP   think -CAUS-PAST
       Intended 'They$_1$ made Hiroshi think e_1 to hit each other.' (Fujii 2006,
       104)

This one-clause-up requirement can also be considered to constitute another piece of evidence for embedding -*yoo* to be a case of Control. Notwithstanding, as we will see below, these two facts, although prima facie supporting the Control analysis of the -*yoo* complementation, can be handled without Control if we adopt indexical shifting.

2.2   Severing the Attitude Holder from the Agent of the -*Yoo* Clause

Unlike infinitive complements, clauses with -*yoo* can appear as a matrix clause, expressing the actual speaker's volition. Therefore, in its default interpretation, (11) expresses the volitional attitude of -*yoo* is ascribed to the speaker, who is also the agent of cleaning the classroom.

(11) (Boku-wa) kyoositu-o   soozi-si-yoo.
        I-TOP   classroom-ACC cleaning-do-MOD
       'I will clean the classroom.'

However, this does not exhaust the patterns. Since we can have SpC via embedding -*yoo*, the plural agent including the speaker and the addressee is expected to be possible, and this is indeed the case. Note that in (12) the volitional attitude is only due to the speaker, so we do not know if the addressee is also willing to clean the classroom. Thus, the addressee can felicitously reply to (12) by saying 'I don't wanna do that'.

(12) (Boku-tati-wa) kyoositu-o   soozi-si-yoo.
        I-PL-TOP   classroom-ACC cleaning-do-MOD
       'Let's clean the classroom.'

In addition, the agent does not have to be the speaker. Suppose that the speaker is a teacher who can tell you or students to clean the classroom.[4] With *kimi* 'you', the speaker tells you to clean the classroom. With *kono seeto* 'this student', the speaker can utter (13) as a soliloquy, probably when s/he is arrang-

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[4] This is not as strong as an imperative, but only a suggestion.

ing the school-cleaning schedule alone. Thus, it is like a performative modal, meaning 'I hereby decide that this student clean the classroom'.[5] Note also that both the 2nd- and the 3rd-person subjects can be plural. Thus, to extent that the speaker expresses his or her volitional attitude, the agent interpretations can be diverse.

(13)   {Kimi/kono seeto}(-tati)-wa kyoositu-o   soozi-si-yoo.
          you/this student-PL-TOP   classroom-ACC cleaning-do-MOD
          '{You/You (pl.)/This student/These students} will clean the class-room.'

As expected, embedding *-yoo* exhibits these multiple interpretations for the embedded agent. Besides (1), we have a (partial-)Object-Control-like interpretation in (14a) as well as partial-Subject and partial-Split Control-like ones as in (14b) and (14c), respectively.

(14)   a.   Tanaka-sensee-wa   Taroo-ni$_2$ [$e_{2(+)}$ dono kyoositu-o
                Tanaka-teacher-TOP Taro-DAT   which classroon-ACC
                soozi-si-yoo-to   ] it-ta-no.
                cleaning-do-MOD-REP   say-PAST-Q
                'Which classroom did Mr. Tanaka tell Taro (and other students) to clean?'
         b.   Taroo-wa [taihen-na   toki-koso e_{1+}
                Taro-TOP   difficulty-COP.ADN time-very
                tasuke-a-oo-to   ] kime-ta.
                help-RECIP-MOD-REP   decide-PAST
                Lit. 'It is in difficult times that Taro$_1$ decided e_{1+2} help each other.'
         c.   Taroo$_1$-wa Hanako$_2$-ni [e_{1+2+} pikunikku-ni ik-oo-to   ]
                Taro-TOP   Hanako-DAT   picnic-DAT   go-MOD-REP
                it-ta.
                say-PAST
   Lit. 'Taro$_1$ said to Hanako$_2$ e_{1+2+} to go on a picnic.'

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[5] This point can be reinforced by the fact that a propositional negation such as *sore-wa uso-da* 'that's a lie' cannot be used to negate (13) (cf. Kaufmann 2012).

(i)   A: Kimi-wa kyoositu-o   soozi-si-yoo.
               you-TOP classroom-ACC cleaning-do-MOD
               'You will clean the classroom.'
        B: Sore-wa uso-da.
               that-TOP lie-COP.PRES
               'That's a lie'

Albeit the embedded agent can be interpreted multiply, the attitude of the embedded *-yoo* must be attributed to the matrix subject, so it is not like *-yoo* in the matrix setting, where the attitude holder is the actual speaker. Then, this indicates that the 1st-person parameter of *-yoo*, when embedded, is shifted in accordance with the context of the matrix subject. I thus claim that embedding *-yoo* does not involve Control but indexical shifting.

3 Deriving the *-Yoo* Complementation via Indexical Shifting

In this section, I lay out my idea regarding how *-yoo* is embedded and its 1st-person semantics is shifted. First, I propose the structure in (15), where I intentionally have the structure between ModP and RepP vague. However, (15) sufficez to understand how indexical shifting of *-yoo* is carried out. Second, I assume with Shimamura (2018, 2019, 2022) that the quotative complement in Japanese involves a covert verb, SAY. Crosslinguistically, indexical shifting tends to be observed in the complement clauses that are introduced by complementizers originating from verbs meaning 'say' (Messick 2017); I assume that this covert SAY introduces a set of universally quantified new contexts that is compatible with the matrix subject's SAYing content, and that SAY can be eventive or stative (cf. Major 2021). Then, I assume that the embedded clause is abstracted over contexts only when SAY is merged. Finally, I assume a simple semantics of *-yoo* given in (16), where *-yoo* encodes the information of its attitude holder as α_c (the actual speaker) in w_c (the actual world). It should be more complex, but since we are only concerned with the person-parameter shifting, this just serves the purpose of this paper.

(15)
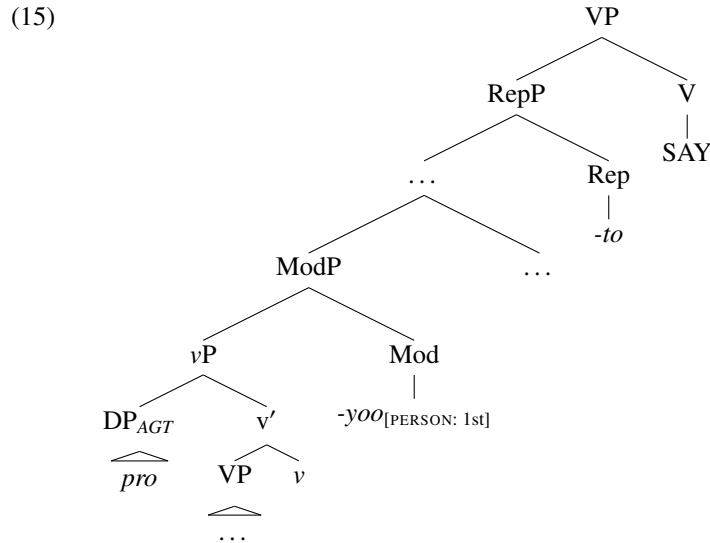
(16) $[\![\text{-}yoo]\!] = \lambda p_{\langle st \rangle}.\forall w'$ compatible with α_c's determination/will in w_c: $p(w')$

When we combine (16) with vP whose agent is the speaker himself/herself as in (11), we get the semantics in (17).

(17) $[\![\text{I clean-}yoo\text{ the classroom}]\!] = \forall w'$ compatible with α_c's determination/will in w_c: α_c clean the classroom in w'

Now, let us consider what semantically happens to (17) when it is embedded:[6]

(18)   Boku-wa [*pro* kyoositu-o   soozi-si-yoo-to   ] omot-ta.
        I-TOP   *pro* classroom-ACC cleaning-do-MOD-REP   think-PAST
        'I thought of cleaning the classroom.'

We ignore the semantic role of the reporting marker *-to*, simply taking it to be an identity function, so that the semantics of the entire RepP is the same as that of (17).[7] Now, SAY is merged to RepP, and I assume with Shimamura (2022) that the semantics of SAY is (19), where SAY also introduces a source argument (Major 2021).[8]

(19) $[\![\text{SAY}]\!] = \lambda q.\lambda x.\lambda e.\text{SOURCE}(x)(e) \wedge e \text{ in } w_c \wedge \forall c' \in \text{CON}(e) : q(c')$

In (19), the argument q type-semantically corresponds to RepP, but RepP can be semantically diverse, contingent on what Rep actually takes. In any case, let us focus our attention on the semantic composition of (17) and (19):

(20) $[\![\text{VP}]\!] = \lambda x.\lambda e.\text{SOURCE}(x)(e) \wedge e \text{ in } w_c \wedge \forall c' \in \text{CON}(e) : [\![pro \text{ clean-}yoo \text{ the classroom}]\!](c')$

As I said above, lambda abstraction over contexts is possible inside the complement of SAY (or 'say' complementizers in general) (Messick 2017, Shimamura 2022), hence (21), where I assume that a newly introduced context c' is tripartite $\langle x, h_{c'}, w_{c'} \rangle$ (the speaker variable, the addressee, and the world). Therefore, SAY is monstrous (cf. Schlenker 2003).

(21)   a. $[\![\text{VP}]\!] = \lambda x.\lambda e.\text{SOURCE}(x)(e) \wedge e \text{ in } w_c \wedge \forall c' \in \text{CON}(e) : (\lambda c'[\![pro \text{ clean-}yoo \text{ the classroom}]\!])(c')$

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[6] For interpretation of *pro* in (18), I assume: $[\![pro_1]\!]^{c,g}$, where $g(1) = \alpha_c$, which is eventually indexical-shifted in (21).

[7] This is just for an expository purpose and due to the limited space. The reporting marker in Japanese is semantically significant in that it changes any semantic type into an utterance of type u (Shimamura 2022). We also ignore what the semantics of the ... part in (15) actually is.

[8] In (19), SAY has a set of contentful events/states in its denotation (Hacquard 2010), but it is not a set of worlds but a set of contexts.

b. $\llbracket VP \rrbracket = \lambda x. \lambda e. \text{SOURCE}(x)(e) \wedge e$ in $w_c \wedge \forall c' \in \text{CON}(e) : \forall w'$ compatible with x's determination/will in $w_{c'}$: x clean the classroom in w'

Then, I assume that when the entire VP projected by SAY is merged to the matrix verb 'think' the source argument is not saturated but passed up via Event Identification (Kratzer 1996), so when the matrix verb, which I take to be a set of events, and the matrix v are merged, we get (v = event type):
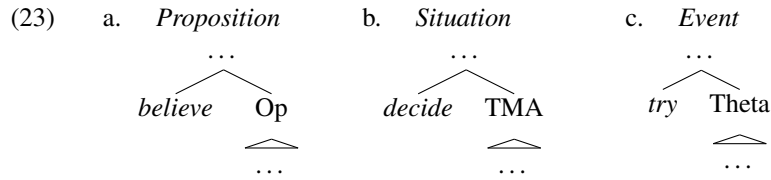
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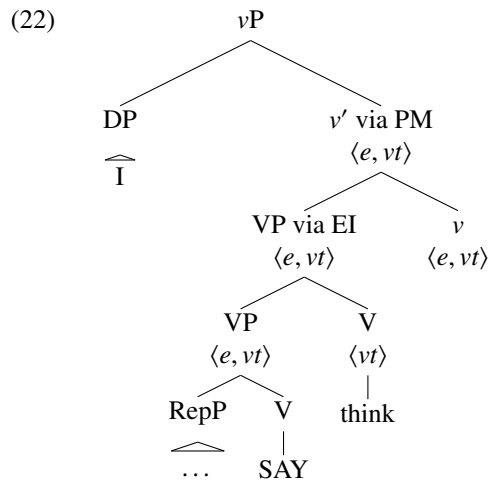
In this way, the source argument and the matrix agent argument are identified via Predicate Modification (PM) (cf. Heim and Kratzer 1998). Given this analysis, the attitude semantics is severed from lexical verbs like 'think' or 'believe' (Elliot 2018, Lohndal 2014, Shimamura 2019).

An immediate consequence of the proposed analysis is that the embedded agent can be anything since we have *pro* whose referent is independently determined, so it can accommodate the various agent interpretations, be *-yoo* used in the matrix domain or the embedded domain. Also, the obligatory *de se* interpretation and the one-clause-up requirement are now explained in terms of indexical shifting. That is, as pointed out in the literature, indexical shifting requires the matrix subject and the embedded subject to be *de-se*-associated (cf. Anand 2006); under our analysis, this is achieved with the matrix subject binding into the embedded *-yoo* clause. Also, the one-clause-up requirement is reduced to the locality of indexical shifting: in (10), the 1st-person feature of *-yoo* can only be shifted in the second embedded clause where *-to* and hence SAY are used. The proposed analysis can thus explain the relevant empirical facts without the PRO/MTC analysis.

4 The Size of the -*Yoo* Complement and the Implicational Complementation Hierarchy

Recently, Wurmbrand and Lohninger (2019) propose an intriguing correlation between the size of an embedded clause and the semantics of its selecting verb, namely the ICH. We cannot go into the details of it for the space limitation of this paper, but the gist is the following:[9]

(23)   a.   *Proposition*   b.   *Situation*   c.   *Event*

     . . .   .

   believe Op   *decide* TMA   *try* Theta

     . . .   .

In (23), the propositional complement given as the Op-domain is syntactically realized as CP, and the situation complement that covers the tense, modal and aspect (TMA) domain is structured at least as TP/IP. Finally, the event complement corresponds to vP or VP, hence the theta domain. Following Wurmbrand and Lohninger's (2019) classification, I argue the following:

(24)   *The Size of the* -Yoo *Complement*

   a. *omow-* 'think'/*iw-* 'say': $[_{CP}\ [_{TP}\ [_{vP}\ DP_{AGT}\ VP\ ]\text{-}yoo\ ]\ ]$

   b. *kime-* 'decide': $[_{TP}\ [_{vP}\ DP_{AGT}\ VP\ ]\text{-}yoo\ ]$

   c. *su-* 'do/try'[10]: $[_{vP}\ \_\_\_\ VP\ ]\text{-}yoo$

Given (24), the part of the structure in (15) I intentionally had as . . . is dependent on the choice of a matrix verb. For (24c), I assume that it is a sort of restructuring (Shimamura and Wurmbrand 2014, Wurmbrand and Shimamura 2017), and that *-yoo* needs to select vP without an agent argument. This then seems to require us to change the semantics of *-yoo* since as in (16) its argument is propositional (a set of worlds). However, I assume the same semantics while I take the mode of the semantic composition to be different. That is, following Jacobson (1990), vP without an agent and the relevant modal are combined via Function Composition.[11]

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[9] Note that the ICH is not an absolute generalization regarding the clause size, but it is only concerned with the minimal structure we need for each of the three structures in (24). For instance, we can structure an event complement as TP or CP, but we cannot have a propositional complement as vP.

[10] Another 'try' verb in Japanese is *kokoromi-*, and it seems to me that this verb behaves in the same way as *su-* for the empirical facts below, but the relevant judgements are tricky, so I do not include it here.

[11] SAY can select (25b) for its semantically flexible nature (Shimamura 2022). However, the

(25) a. Taroo-wa [heya-o   soozi-si-yoo-to   ] si-ta.
       Taro-TOP   room-ACC cleaning-do-MOD-REP   do-PAST
       'Taro tried to clean the room.'

   b. *The Semantics of the Embedded Clause*
      $\lambda x.\forall w'$ compatible with α_c's determination/will in w_c: x clean
      the room in w' (via $[\![\text{-}yoo]\!] \circ [\![vP]\!]$)

Notice at this point that for (24) to work out we need to assume that the reporting marker is not a complementizer. As I said above, I assume for a brevity's sake that it is an identity function and SAY is type-flexible (but see Shimamura 2018, 2019, 2022). Then, the size of the *-yoo* complement can be different under the ICH. First, only (24a) is compatible with an embedded Q-marker. If the Q-marker is located at C or moves to C (cf. Cable 2010, Hagstrom 1998), (26) and (27) show that (24a) is on the right track.

(26) Taroo$_1$-wa [e_1 daigaku-o   yame-yoo-ka-to]
     Taro-TOP   university-ACC quit-MOD-Q-REP
     {omot/it/*kime/*si}-ta.
      think/say/decide/do-PAST
     'Taro {thought of/talked about} quititng the university.'

(27) Taroo$_1$-wa [e_1 tugini nani-o   si-yoo-ka-to   ]
     Taro-TOP   next   what-ACC do-MOD-Q-REP
     {omot/it/*kime/*si}-ta.
      think/say/decide/do-PAST
     'Taro {thought of/talked about} what he should do next.'

Another piece of evidence concerns the temporal interpretations. As in (28), (24a) and (24b) are compatible with two independent time adverbs. The impossibility of (29) then shows us that (24c) lacks the TMA domain.

(28) Kyoo Taroo$_1$-wa [e_1 asu   pikunikku-ni ik-oo-to   ]
     Today Taro-TOP   tomorrow picnic-DAT   go-MOD-REP
     {kime/omot}-ta.
      decide/think-PAST
     'Today, Taro {decided to go/thought of going} on a picnic tomorrow.'

(29) Kyoo Taroo$_1$-wa [e_1 (*asu)   pikunikku-ni ik-oo-to   ]
     Today Taro-TOP   tomorrow picnic-DAT   go-MOD-REP
     si-ta.
      do-PAST
     'Today, Taro tried to go on a picnic (*tomorrow).'

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content of SAY is not a proposition but a property (a set of individuals who will clean the room in the embedded context).

The complement size of *su-* 'do/try' is very small in that it only projects the theta domain (without an agent). This is diagnosed by licensing a negative concord item, which requires a clausemate negation:

(30)　Taroo$_1$-wa [e_1 dare-ni-mo　aw-oo-to　　]
　　　Taro-TOP　　who-DAT-also see-MOD-REP
　　　{si/*kime/*iwa}-nakat-ta.
　　　 do/decide/say-NEG-PAST
　　　'Taro didn't try to meet anyone.'

Furthermore, since (24c) lacks the embedded agent *pro*, it does not allow a partial-Control-like reading:

(31)　Taroo$_1$-wa [e_{1+} kyoositu-o　　soozi-si-yoo-to　　]
　　　Taro-TOP　　classroom-ACC cleaning-do-MOD-REP
　　　{omot/it/kime/*si}-ta.
　　　 think/say/decide/do-PAST
　　　Lit. 'Taro$_1$ {thought of /talked about/decided} e_{1+} {cleaning/to clean} the classroom.

Finally, long passivization is possible for (24c) but not for (24a) and (24b) as (32) shows (cf. Wurmbrand 2001).

(32)　Sin'yaku-ga　　　sono kenkyuusya-niyotte umidas-oo-to
　　　new.medicine-NOM that　researcher-by　　create-MOD-REP
　　　{s-are/*kime-rare/*omow-are/*iw-are}-te-i-ta.
　　　 do-PASS/decide-PASS/think-PASS/say-PASS-ASP-COP-PAST
　　　Lit. 'A new medicine was being tried to create by the researcher.

Since the embedded clause lacks the external argument, *v* cannot assign an accusative case as Shimamura and Wurmbrand (2014) and Wurmbrand and Shimamura (2017) claim.

　　Before concluding this paper, let us discuss one more potential issue of the proposed analysis concerning the ICH in light of SAY, by which we have severed the argument-selecting property from the matrix attitude predicate. This semantic move may be problematic to the ICH, since this generalization concerns the relationship between the semantics of the attitude verb and the size of its complement clause. Under the analysis given here, what introduces the embedded clause is SAY, so that there is no direct selectional relationship between the matrix attitude verb and its complement clause. I thus assume that SAY and the matrix attitude verb are syntactically combined via head movement, forming a complex predicate, and the resulting amalgamated verb counts as one predicate to select the complement clause. In this respect, also

noteworthy is that *su-* that literally means 'do' is not an attitude verb. However, it can appear with a quotative clause with *-to*. Under our analysis, this is possible because there is a covert verb, SAY, and VP headed by SAY and *do* are semantically composed just like (22). Then, the combination of SAY and *su-* creates an idiomatic interpretation of the latter as 'try'.

5   Conclusion

I have proposed a non-Control approach to embedding *-yoo*, which Fujii (2006, 2010) argues to instantiate SC and SpC. However, in view of the distributions of the embedded agent construal and the dissociation of the attitude holder from the agent, any Control analysis (either PRO or the MTC) will have difficulty in explaining the data presented in this paper, at least without any modifications, and such modifications will call for additional (probably ad hoc) assumptions. I have also contended that the size of the complement clause can vary in accordance with the semantics of the matrix predicate, and showed that the different sizes of complement clauses result in several different syntactic/semantic behaviors of them such as long passivization and negative concord item licensing.

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