Chapter 7

Against embedded modal as control in Japanese: Its relevance to the implicational complementation hierarchy

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In this chapter, I will investigate the nature of one specific sentential complementation in Japanese that has been considered to be a case of obligatory control in the syntactic literature: embedding the modal element, *yoo*. I will propose, contrary to Fujii (2006, 2010), Takano (2010) among others, that it does not exemplify a case of such a control construction, giving another way to get it via indexical shifting. Then, I will also discuss the relevance of the analysis to be proposed in terms of the implicational complementation hierarchy put forth by Wurmbrand & Lohninger (2020).

1 Introduction

This chapter reconsiders one specific construction in Japanese that has been analyzed as a control complement and hence it has been assumed to involve a PRO subject (Fujii 2006, 2010, Takano 2010, Uchibori 2000 among others), where the volitional modal *yoo* is embedded under several kinds of matrix predicates.[1] As we will see, all the instances of the *yoo* complement are *prima facie* the same, but

[1] *yoo* has two instantiations, which are phonologically conditioned: *yoo* appears when a verb stem ends with a vowel whereas *oo* appears when it ends with a consonant. However, the polite suffix *mas* is exceptional due to its irregular inflectional paradigm, and we have *mas-yoo* in lieu of the expected *mas-oo*.

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a closer look into their semantic properties divulges that they are different in accordance with the types of matrix selecting verbs. Specifically, verbs like *kime-* 'decide' exhibit more signatures of clausal complexity in their *yoo* complements than verbs like *kokoromi-* 'try'. This syntactic disparity regarding the complexity of the *yoo* complement clause is traceable in terms of the semantic properties of the embedded clauses in general. This correlation between the semantic properties of a given complement clause and its syntactic realization is now captured in terms of the universal generalization proposed by Wurmbrand & Lohninger (2020), viz. the the implicational complementation hierarchy.

This chapter goes as follows: in Section 2, I will go over the analysis of English infinitives proposed by Wurmbrand (2014), discussing how the semantic properties of embedded clauses affect the syntactic architecture of them as well as a recent argument made by Wurmbrand & Lohninger (2020) regarding the implicational complementation hierarchy in terms of the clause size of such infinitival complements. Then, Section 3 will look into the nature of the *yoo* complement connecting to different matrix verbs, showing that the *yoo* complement to verbs like *kime-* 'decide' is compatible with independent temporal construal and enjoys various subject interpretations, which state of affairs is however not observed in the *yoo* complement clause selected by other verbs like *kokoromi-* 'try'. In Section 4, I will put forth my analysis, contending that the pertinent contrast is due to the size of the embedded *yoo* complement. The *yoo* complement of *kokoromi-* 'try' is very small, so that it is, as we will see, able to undergo long passivization. In Section 5, I then show that the size of the embedded *yoo* is not absolute, and the clause size can be expanded even for 'try' verbs if other syntactic/semantic factors such as the presence of an overt embedded subject and the possibility of temporal independence of the embedded clause are taken into consideration. Section 6 will then conclude.

2 English infinitives and the implicational complementation hierarchy

Wurmbrand (2014) proposes an intriguing proposal regarding what has been called the control infinitive (CI). Her approach posed a significant challenge to the widely accepted perspective that the CI is tensed whereas other instances of infinitives (i.e. ECM/raising) are untensed. This disparity is most conspicuously expressed in the "null Case" approach to licensing a PRO (see Martin 2001 and references therein). That is, the subject of the CI complement is licensed as a PRO due to the availability of the pertinent null Case while the subject of the

ECM/raising counterpart must enter into a structural Case dependency with the matrix *v* (ECM) or T (raising) to be Case-marked.

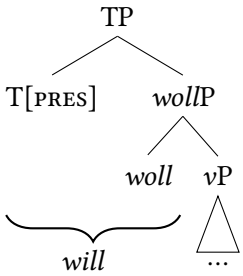
However, even though the following three alleged CI complements are *prima facie* similar for their verbal/infinitival morphology, they exhibit different properties for their temporal interpretations.

(1) a. Yesterday, John decided/wanted/planned to leave tomorrow.
b. Yesterday, John tried/began/managed to leave (*tomorrow).
c. Yesterday, John claimed to be leaving {right then/tomorrow}/*to leave tomorrow. (Wurmbrand 2014: 408)

In (1a), the CI complement of e.g. *decide* denotes future irrealis, allowing modification by *tomorrow*. In contrast, such an interpretation is prohibited in (1b) and (1c): the CI complement of (1b) is *simultaneous* in the sense that the matrix verb and the embedded verb do not permit independent adverbial modification, and the same holds for *claim* in (1c), which is a case of the propositional CI, according to Wurmbrand (2014). It is not a *bonafide* future irrealis complementation due to the impossibility of **to leave tomorrow*. Rather, the CI complement of (1c) is construed as temporally simultaneous with the matrix predicate with the adverb *right then*, or as a planned/scheduled future with *tomorrow* (like *I'm leaving tomorrow* in the matrix context).

Wurmbrand (2014) contends that all the CI complements in (1), even (1a), are tenseless, with the structure where the finite future tense is decomposed into T and *woll*P (see Abusch 1985, 1988 for *woll*P). When T is encoded as [PAST], the combination of T and *woll* will be spelled out as *would*.

(2) Finite *will*



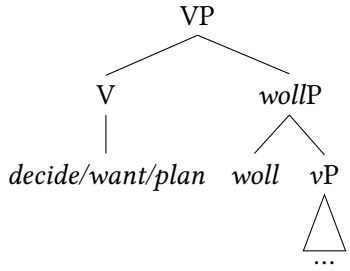
Given (2), the CI complement in (1a) is *woll*P and that of (1b) and (1c) lacks both TP and *woll*P. Since TP is absent in (1a), the future orientation of the embedded *woll*P is not absolute. In this connection, consider (3). In (3a), the matrix verb and the embedded verb are each modified by different adverbs, *a week ago* and

yesterday, respectively. This is not possible in (3b). This is because the embedded clause has finite *will* that results from (2), and *will*'s T is absolute in the sense that it refers to the utterance time (the speaker's now). The availability of *yesterday* in (3a) thus indicates that the future orientation of the CI complement in (3a) is "relativized" to the matrix past tense (Leo's now). Therefore, such a complement lacks tense (hence TP), and the future construal is rendered by the modal *woll*.

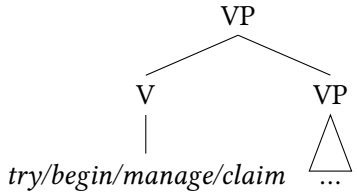
(3) a. Leo decided a week ago to go to the party yesterday.
b. Leo decided a week ago that he will go to the party (*yesterday).
(Wurmbrand 2014: 413)

Turning to the other CI complements in (1), the simultaneous interpretation comes, under Wurmbrand's analysis, in the form of bare VP (Wurmbrand 2001: cf.). Details aside, we have at least the following two types of infinitives in English.[2]

(4) a.



b.



Now, what is interesting at this point is that the infinitive morphology *per se* does not tell us much about the syntactic structure of a given CI complement. Rather, its syntactic interior becomes discernible through examining the properties of selecting verbs.

In this connection, Wurmbrand & Lohninger (2020), examining various European languages, put forth a hypothesis concerning the size of complement clauses that is defined in terms of semantics. According to them, there are three types of complements: *propositions*, *situations* and *events*. Propositions involve speech/epistemic contexts, and they are temporally independent and anchored to the embedding context. Situations denote emotive and irrealis contexts. They lack speaker/utterance-oriented properties, but they have their own time and

[2]Wurmbrand (2014) also discusses the structure where an aspectual projection, AspP, is projected in tenseless (simultaneous) infinitives. However, I abstract away from it in this paper.

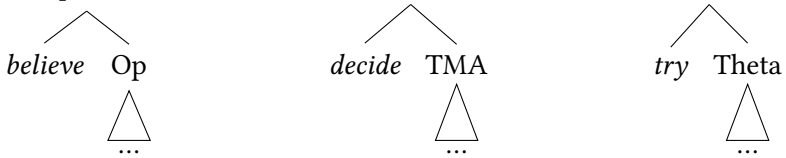
world parameters. Events are semantically a property of events, lacking their own context/time/world parameters. Then, with this trichotomy, clauses that denote propositions are more clausal than those which denote situations, which are in turn more clausal than those which denote events. This structural differences are reflected in various syntactic, morphological and semantic properties, and the presence of some property X in one type of complement implies X's existence or absence in another type of complement left/right-adjacent to it in the clause-size-defining scale, termed the implicational complementation hierarchy (ICH) (Wurmbrand & Lohninger 2020: 6).

Table 1: Implicational complementation hierarchy

MOST INDEPENDENT		LEAST INDEPENDENT
LEAST TRANSPARENT	Proposition ≫ Situation ≫ Event	MOST TRANSPARENT
LEAST INTEGRATED		MOST INTEGRATED

For instance, if a languages allows clitic climbing from the situation complement, then it should be the case that the event complement also allows it. According to Wurmbrand & Lohninger (2020), the minimal structures of the three types of complements are the following (Wurmbrand & Lohninger 2020: 33):

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



Op stands for the operator domain, CP, and TMA signifies the tense-modal-aspect domain. Theta corresponds to the argument structure domain so that it is defined in terms of *v*P (VP). Since these are the minimal structures, it is still possible to have e.g the situation complement structured as a CP, but it will never be the case that the situation complement comprises only the Theta structure.

As we will see, the same state of affairs holds for what has been analyzed as control in Japanese.

3 Control in Japanese?

3.1 Embedding *yoo*

Although there is no sign of non-finiteness in Japanese in the sense of European languages like English, it has sometimes been argued that Japanese has PROs and hence control constructions. One such case to be discussed throughout the rest of this paper involves a volitional modal element, *yoo* (Fujii 2006, 2010, Uchibori 2000, Shimamura 2015). Observe:[3]

(6) a. Kinoo, Taroo-wa [asu syuppatu-si-yoo-to]
yesterday Taro-TOP tomorrow departure-do-MOD-REP
{kime/omot}-ta.
decide/think-PAST
'Yesterday, Taro {decided to leave/thought about leaving} tomorrow.'

b. Kinoo, Taroo-wa [(*asu) syuppatu-si-yoo-to]
yesterday Taro-TOP tomorrow departure-do-MOD-REP
{kokoromi/si}-ta.
try/do-PAST
'Yesterday, Taro tried to leave (*tomorrow).'

(6a) is just like (1a) in English, allowing two independent time adverbs to occur. In contrast, the event of *leaving* in the complement clause must be simultaneous with the matrix verbs in (6b) (but see (34a) below). However, notwithstanding this apparent similarity between in English and Japanese, I will argue that (6) does not substantiate control constructions, at least in the sense that it does not involve an obligatorily controlled PRO.

3.2 *Yoo* in the matrix context and the interpretation of the agent

The first task I would like to undertake to do is consider whether the complement clauses in (6) are really control complements. In this connection, note that the clause suffixed by *yoo* is in fact used as a root clause that expresses the speaker's intention. Therefore, it is rather difficult to have non-1st person subjects in the

[3]Regarding the matrix selecting verbs, all the above English examples cannot be replicated in Japanese. This is because some of them cannot take a *yoo* complement, and selects a different type of embedded clause. For instance, 'start' in Japanese is *hazime-*, and the complement clause of this verb is rendered via the complex predicate formation/bare VP-complementation or Restructuring in the sense of Wurmbrand (2001). I thus discuss Japanese data only for those verbs that are compatible with the *yoo* complement.

yoo sentence, and previous researches discussing this modal observe that the 2nd or 3rd person pronouns are incompatible with *yoo* (but see Moriyama 1990 and Narrog 2009). The following judgment represents the standard (widely accepted) observation reported in the literature (cf. Fujii 2006).

(7) {Boku/#kimi/#kanozyo}-wa syuppatu-si-yoo.
I/You/She-TOP departure-do-MOD
'{I/#You/#She} will leave.'

However, as Shimamura (2015) points out, the choice of *kimi* 'you' and *kare* 'she' becomes possible when an appropriate context is set up. For instance, if I am in a privileged position by which I can command 'you' or 'her' to leave, then I can utter (7) with *kimi* or *kanozyo*.

Also equally important to mention here is the fact that plural subjects are possible, and again, the intention to make a given action (here, *leaving*) to happen is ascribed to the speaker:

(8) {Boku/kimi/kanozyo}-tati-wa syuppatu-si-yoo.
I/You/She-PL-TOP departure-do-MOD
'{We/You (PL)/They} will leave.'

Therefore, we need to dissociate the intention holder from the actual doer; the simplest case is such that the former and the latter are identical, hence the case of *I will leave* in (7). Then, I assume that *yoo* has its person parameter fixed to the 1st person, denoting the speaker's volitional attitude as shown in Figure 1, where the attitude holder of *yoo* is expressed in terms of the person feature on the modal head, and the actual doer (agent) is merged to Spec-*v*P. Therefore, the agent can be anything, be it 1st person, 2nd person, 3rd person, singular or plural.

Then, what is expected is that when embedded as a(n apparent) control complement, the embedded agent does not have to be identical to the matrix attitude holder. This prediction is borne out, insofar as the selecting verb is *kime-* 'decide' or *omow-* 'think' among others. Observe (9), where I give a silent subject in the complement clause as *e*. The embedded agent has other members in addition to Taro (represented as +).

(9) Context: Taro, who is the leader of his trekking team, was thinking about when they should leave, and he reached the conclusion:
Taroo$_1$-wa [asu e_1+ syuppatu-si-yoo-to] {kime/omot}-ta.
Taro-TOP tomorrow departure-do-MOD-REP decide/think-PAST
'Taro$_1$ {decided e_1+ to leave/thought about e_1+ leaving} tomorrow.'

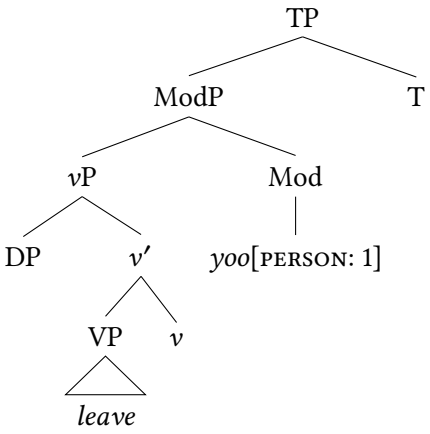


Figure 1: Structure of *yoo* clause

This is like partial control (cf. Landau 2000). Embedding *yoo* also yields a split-control-like construction as in (10), but it is also possible to include additional members other than Taro and Jiro for the embedded agent interpretation.

(10) Context: Taro, who is the leader of his trekking team, was thinking about when they should leave, and he reached the conclusion, which he told to Jiro:
Taroo$_1$-wa Ziroo$_2$-ni [asu e_{1+2}+ syuppatu-si-yoo-to] it-ta.
Taro-TOP Jiro-DAT tomorrow departure-do-MOD-REP say-PAST
Lit. 'Taro$_1$ told Jiro$_2$ e_{1+2}+ to leave tomorrow.'

In passing, (10) is also fine in the context where Taro commands Jiro to leave (with or without other members) tomorrow. In this case, the embedded agent does not include the attitude holder, reminiscent of the 'you' option in (7) and (8). In contrast, the simultaneous complement in (6b) (like English) never allows partial control, whence it must be like a case of exhaustive subject control.[4]

(11) Taroo-wa [e_1(*+) syuppatu-si-yoo-to] {kokoromi/si}-ta.
Taro-TOP departure-do-MOD-REP try/do-PAST
'Taro$_1$ tried e_1(*+) to leave.'

To recap, the modal *yoo* is not limited to the embedded context, which is different from the CI in English, and the silent subject (agent) of the control-like

[4]Note that *kokoromi-/su-* cannot take a dative argument, so that they never allow an object-control-like interpretation.

construction in Japanese readily accommodates various interpretations like partial, split and even partial split control. This suggests that *yoo* is not a case of obligatory control (OC), for the OC PRO is not assumed to support such a wide variety of interpretational options of the silent agent (see Landau 2000 and Hornstein (1999, 2003) for the opposing views regarding whether split control exists and (if so) is a case of OC). As we will see next, the Japanese construction under discussion passes other OC diagnostics. However, I suggest that this state of affairs is illusory, due to the shifted person parameter of *yoo* via indexical shifting.

3.3 Obligatory control diagnostics and indexical shifting of *yoo*

The wide range of interpretational possibilities for the embedded agent strongly suggests that embedding *yoo* is not a case of OC. However, other diagnostics such as the availability of *de se*/*de te* seem to tell us that it is an instance of OC. For instance, Fujii (2006) gives:

(12) 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] omot-te-i-ru.
Hiroshi-TOP foreign.country-to go-MOD-REP think-ASP-COP-PRES
'Hiroshi thinks of going abroad.' (Fujii 2006: 106)

In the provided context in (12), the sentence sounds infelicitous. Also, Fujii (2006) shows, among others, the antecedent of the alleged OC PRO of the *yoo* complement must be "one-clause up", namely, the ban on long-distance antecedents. Witness:

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

This example shows that the highest subject cannot be the antecedent of the silent subject in the most embedded clause. These data plus the other tests Fujii (2006) discusses may lead us to conclude that the *yoo* complement can be an OC complement (setting aside partial control discussed above).

However, recall that *yoo* in the matrix context must have the attitude holder is the 1st person, and this restriction is lifted when *yoo* is embedded. In this sense, it can be a case of indexical shifting, and relevant to this, Japanese allows imperatives to be embedded, concerning which Sauerland & Yatsushiro (2014) propose that it is possible due to the indexical shifting of the imperative verb. Given this, I assume with Sauerland & Yatsushiro (2014) that in the context where the reporting particle *to* is employed indexical shifting applies obligatorily.[5] I assume that the monster operator is located in the reporting particle.

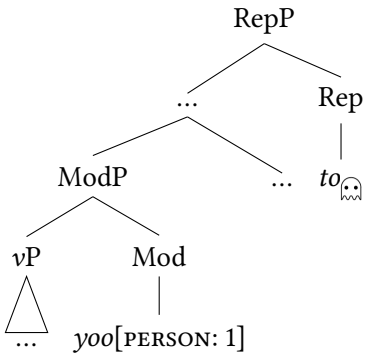


Figure 2: *yoo* complement and indexical shifting

Then, the obligatory *de se* construal is due to indexical shifting, since it has been shown that the first person pronoun of Zazaki, when shifted, must be interpreted as a self-ascription by the matrix subject. Observe:[6]

(14) Zazaki's indexical shift (Anand 2006: 79)
Heseni va [kɛ ɛz newɛsha.]
Hesen.OBL said that I be.sick.PRES
'Hesen said that he was.'

a. Hesen says, "I am sick today."

b. # Hesen, at the hospital for a checkup, happens to glance at the chart of a patient's blood work. Hesen, a doctor himself, sees that the patient is clearly sick, but the name is hard to read. He says to the nurse when she comes in, "This guy is really sick."

[5] Sudo (2012) observes that indexical shifting is optional. However, his discussion is based on the shifted indexicality of the 1st person pronoun, and its shiftablity is controversial; see Sauerland & Yatsushiro (2014) and Shimamura (2018) for a detailed discussion on this.

[6] However, see Deal (2020) for the cases where indexical shifting does not lead to the obligatory *de se* interpretation.

Turning to the "one-clause up" requirement, the locus of the reporting particle accounts for the impossibility of long-distance antecedents. That is, since indexical shifting via *to* in (13) is implemented relative to Hiroshi's context, it is impossible to have the silent subject interpreted relative to the matrix subject, to the extent that the former is identical to Hiroshi, the most natural interpretation.

Then, what is the silent subject? I suggest that it is a silent pronoun, *pro*, readily available in the Japanese grammar. In the default cases of subject-control-like examples i.e. (6), the attitude holder of the shifted *yoo* and the embedded agent should be regarded as identical, so that we apparently get the obligatory *de se* reading. However, as we saw above, the agent does not have to be identical to the attitude holder, and such being the case, it is like a command. For instance:

(15) Yamada sensei-wa Taroo$_1$-ni [e_1 motto ronbun-o kak-oo-to]
Prof. Yamada-TOP Taro-DAT more paper-ACC write-MOD-REP
it-ta.
say-PAST
Lit. 'Prof. Yamada told Taro$_1$ e_1 to write more papers.'

This example seems to be a case of obligatory object control, hence the obligatory *de te* reading. Nevertheless, we can come up with the following example:

(16) Context: Yuta is hosting a party. He hears that a certain waiter named Yusuke is being a nuisance. Yuta tells the nearest waiter, "Yusuke has to go." Unbeknownst to him, he's talking to Yusuke.
Yuuta-wa Yuusuke$_1$-ni [e_1 koko-kara dete-ik-oo-to] it-ta.
Yuta-TOP Yusuke-DAT here-from leave-go-MOD-REP say-PAST
'Yuta said to Yusuke$_1$ e_1 to leave here.'

This example clearly shows that the pertinent *de te* reading can be absent.

Another example that can be regarded as problematic to the OC approach to the embedded *yoo* is concerned with the sloppy reading under ellipsis. Building on the fact that OC only allows the sloppy reading in the context of ellipsis (Hornstein 1999), Fujii (2006) observes that examples like (17) only support the sloppy reading.

(17) a. Taroo-wa Ziroo-ni [*e* ie-ni kaer-oo-to] it-ta.
Taro-TOP Jiro-DAT house-to return-MOD-REP say-PAST
'Taro told Jiro to go home.'

b. Saburoo-ni-mo da.
Saburo-DAT-also COP.PRES
'Saburo, too.' (Lit. Taro also told Saburo [{Saburo/*Jiro} to go home].)

However, we can have another example, where the strict reading is possible (or sounds more natural). As in (18b), the elided doer is most naturally interpreted as Saburo, not his parents since the common sense says that his parents are not supposed to write any papers to get their son's academics right. Note that making a command to a 3rd person individual is possible as in (19); also, see (7) and (8).

(18) a. Yamada sensei-wa Taroo$_1$-ni [e_1 motto ronbun-o kak-oo-to]
Prof. Yamada-TOP Taro-DAT more paper-ACC write-MOD-REP
it-ta.
say-PAST
Lit. 'Prof. Yamada told Taro$_1$ e_1 to write more papers.'

b. Kare-no oya-ni-mo da.
he-GEN parent-DAT-also COP.PRES
'His parents, too.' (Lit. Prof. Yamada also told his (Saburo's) parents [Saburo to write more papers].)

(19) Otaku-no musuko-san-wa motto ronbun-o kak-oo.
you-GEN son-POL-TOP more paper-ACC write-MOD
'Your son should write more papers.'

Given the above discussion, the complement clauses in (6) do not host a(n OC) PRO, but the silent subjects are silent pronouns, namely, *pro*.

4 Proposal

The aim of this section is to explain why the examples in (6), repeated here in (20), behave differently for their temporal and subject interpretations.

(20) a. Kinoo, Taroo-wa [asu syuppatu-si-yoo-to]
yesterday Taro-TOP tomorrow departure-do-MOD-REP
{kime/omot}-ta.
decide/think-PAST
'Yesterday, Taro {decided to leave/thought about leaving} tomorrow.'

b. Kinoo, Taroo-wa [(*asu) syuppatu-si-yoo-to]
yesterday Taro-TOP tomorrow departure-do-MOD-REP
{kokoromi/si}-ta.
try/do-PAST
'Yesterday, Taro tried to leave (*tomorrow).'

To capture the differences under discussion, I propose the two structures in Figures 3 and 4.

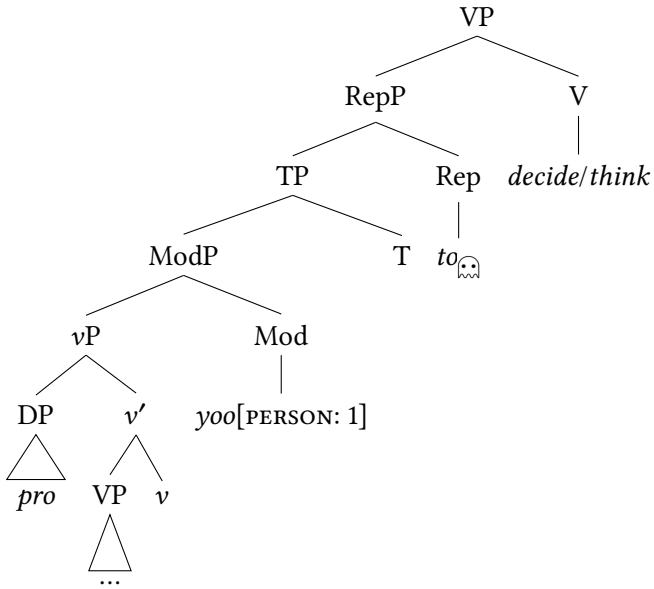


Figure 3: TP-complementation

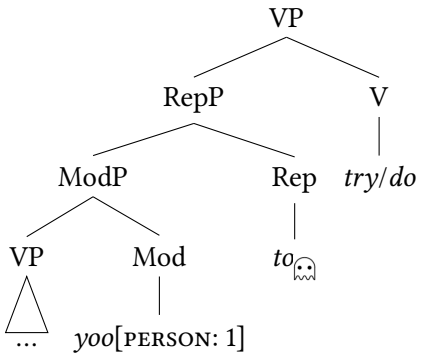


Figure 4: ModP/VP-complementation

In Figure 3, the embedded clause has *v*P as well as TP, whereas Figure 4 lacks them. Unlike (4a), I assume that TP is present. Note that in Japanese, the finite future can be expressed by the present form if a given verb is eventive, and when

embedded, it is interpreted relative to the matrix reference time (Taro's now in (21)). Observe:

(21) Taroo-wa [Ziroo-ga koko-ni ku-ru-to] it-ta.
Taro-TOP Jiro-NOM this.place-to come-PRES-REP say-PAST
'Taro said that Jiro would come here.'

Therefore, Japanese is not like English in this respect, but just like English in (3a) it is possible to utter:

(22) Sensyuu, Taroo-wa [kinoo syuppatu-si-yoo-to]
last.week Taro-TOP yesterday departure-do-MOD-REP
{kime/omot}-te-i-ta.
decide/think-ASP-COP-PAST
'Last week, Taro {decided to leave/thought about leaving} yersterday.'

I thus assume that the future tense is always relative, unlike English (see Ogihara 1995), so the presence of TP is not problematic even for (22).

Also worthwhile to note here is that I do not assume that Rep is a complementizer, contrary to the widely accepted view; see Shimamura (2018) and references therein. For instance, Shimamura discusses a case where non-clausal items like names are embedded:

(23) a. Kare-wa zibun-no misume-o Aoi-to nazuke-ta.
he-TOP self-GEN daughter-ACC Aoi-REP name-PAST
'He named his daughter Aoi.'
b. * Kare-wa zibun-no misume-{ga/o} Aoi-da-to nazuke-ta.
he-TOP self-GEN daughter-NOM/ACC Aoi-COP.PRES-REP name-PAST
Intended: 'He named his daughter Aoi.'

As in (23b), any property that signalizes a clausal structure is excluded: that is, nominative case, which is assumed to be assigned by the (finite) C-T association (Chomsky 2008), is impossible and the copula cannot appear either. Thus, this means that Rep directly attaches to the name. Note also that this is not a case of direct quotation since we can ask the name as follows:

(24) Kare-wa zibun-no misume-o nan-to nazuke-ta-no.
he-TOP self-GEN daughter-ACC what-REP name-PAST-Q
'What did he name his daughter?'

Then, the structure in Figure 3 can be considered to be more "biclausal" than that in Figure 4, which is supported by the fact about the negative concord items (NCI); the combination of wh-pronouns and *-mo* 'also' yields NCIs such as *dare-mo* (who-also) 'anyone', which requires the presence of a negation as in (25), and unlike negative polarity items, NCIs need a given negation to be in the same clause where they are located, as shown in (26).

(25) a. Taroo-wa dare-mo seme-naka-ta.
Taro-TOP who-also blame-NEG-PAST
'Taro didn't blame anyone.'

b. * Taroo-wa dare-mo seme-ta.
Taro-TOP who-also blame-PAST

(26) a. Taroo-wa [Ziroo-ga dare-mo seme-naka-ta-to] it-ta.
Taro-TOP Jiro-NOM who-also blame-NEG-PAST-REP say-PAST
'Taro said that Jiro didn't blame anyone.'

b. * Taroo-wa [Ziroo-ga dare-mo seme-ta-to] iw-anakat-ta.
Taro-TOP Jiro-NOM who-also blame-PAST-REP say-NEG-PAST

Then, consider the following contrast:

(27) a. Taroo-wa [dare-ni-mo aw-oo-to.]
Taro-TOP who-DAT-also see-MOD-REP
{*kime-nakat/?omow-anakat}-ta.
decide-NEG/think-NEG-PAST
Lit. 'Taro didn't {decide to meet/think about meeting} anyone.'

b. Taroo-wa [dare-ni-mo aw-oo-to] {?kokoromi/si}-nakat-ta.
Taro-TOP who-DAT-also see-MOD-REP try/do-NEG-PAST
Lit. 'Taro didn't try to meet anyone.'

In (27a), the NCI cannot be licensed by the matrix negation with *kime-* 'decide'. Note that *omow-* 'think' is relatively fine, but it is a typical neg-raising verb, so it may be irrelevant here. What is crucial is then that the NCI in (27b) is licensed. It is obvious that both *kokoromi-* 'try' and *si-* 'do' are not neg-raising verbs, yet the NCI is possible. This suggests that the embedded clause in (27a) is smaller than that in (27b).

At this point, the structures in Figures 3 and 4 give us another interesting prediction: that is, the accusative case that is assigned to the embedded object stems from the embedded verb in Figure 3 and the matrix verb in Figure 4 since an

accusative case, by assumption, is assigned by (transitive) *v*, so that long passive should be possible in Figure 4, but not in Figure 3. This prediction turns out to be true as follows:[7]

(28) a. * Sono kenkyuusya-niyotte sin'yaku-ga umidas-oo-to
that researcher-by new.medicine-NOM create-MOD-REP
{kime-rare/omow-are}-te-i-ta.
decide-PASS/think-PASS-ASP-COP-PAST
Lit. 'A new medicine had been {decided to create/thought about creating} by the researcher.'

b. Sono kenkyuusya-niyotte sin'yaku-ga umidas-oo-to
that researcher-by new.medicine-NOM create-MOD-REP
{kokoromi-rare/s-are}-te-i-ta.
try-PASS/do-PASS-ASP-COP-PAST
Lit. 'A new medicine was being tried to create by the researcher.'

Having established that the two *yoo* complements are different in their sizes, we are ready to explain why temporal interpretations and subject (agent) interpretations are different between them. That is, since the *yoo* complement in Figure 3 hosts T and *pro*, it is compatible with two independent time adverbs and various kinds of agent interpretations. In contrast, Figure 4 lacks T and *pro*, so that it must be temporally simultaneous with the matrix event time, and the agent of the embedded event must be the same as the matrix subject just like *Restructuring* discussed by Wurmbrand (2001).

5 How much structure we need in the *yoo* complement

Before I conclude, I will discuss a couple of empirical issues of the proposed analysis. Although Japanese does not have e.g. clitic climbing, it has scrambling. It is widely known that scrambling out of the proposition complement must be an instance of A′-movement (i.e. A′-scrambling) (Saito 1992: among many others). In contrast, the situation complement is transparent to A-scrambling (Nemoto 1991; but see Takano 2010), so that the event complement should also allow A-scrambling from it. This is indeed the case: in (29), the pronoun *soko* 'that place' needs to be A-bound by some quantified expression in order to function as a bound variable. In (29a), since it is not A-bound by any quantifiers, the bound

[7]Some of my language consultants did not like (28b), but they still saw the clear contrast between (28a) and (28b), observing that (28b) is much more acceptable than (28a).

variable interpretation is not possible, whereas A-scrambling the embedded object in front of the matrix subject that has the relevant pronoun makes the bound variable reading possible.

(29) a. Soko$_{*2}$-no bengosi$_1$-ga [e_1 mittu-izyoo-no kigyoo$_2$-o
that.place-GEN lawyer-NOM 3.CL-more.than-GEN company-ACC
uttae-yoo-to] kime-ta.
sue-MOD-REP decide-PAST
Lit. 'Their$_{*2}$ lawyers decided to sue [more than three companies]$_2$.'

b. [Mittu-izyoo-no kigyoo$_2$-o]$_3$ soko$_2$-no bengosi$_1$-ga [e_1 t_3
3.CL-more.than-GEN company-ACC that.place-GEN lawyer-NOM
uttae-yoo-to] kime-ta.
sue-MOD-REP decide-PAST
Lit. '[More than three companies$_2$]$_3$, their$_2$ lawyers decided to sue t_3.'

Then, it follows that the event complement is also transparent for A-scrambling. For the current discussion, the complement clause of *kokoromi-* 'try' and *su-* 'do' should be of this kind since it is tenseless/simultaneous.

(30) a. Soko$_{*2}$-no bengosi$_1$-ga [e_1 mittu-izyoo-no kigyoo$_2$-o
that.place-GEN lawyer-NOM 3.CL-more.than-GEN company-ACC
uttae-yoo-to] {kokoromi/si}-ta.
sue-MOD-REP try/do-PAST
Lit 'Their$_{*2}$ lawyers tried to sue [more than three companies]$_2$.'

b. [Mittu-izyoo-no kigyoo$_2$-o]$_3$ soko$_2$-no bengosi$_1$-ga [e_1 t_3
3.CL-more.than-GEN company-ACC that.place-GEN lawyer-NOM
uttae-yoo-to] {kokoromi/si}-ta.
sue-MOD-REP try/do-PAST
Lit. '[More than three companies$_2$]$_3$, their$_2$ lawyers tried to sue t_3.'

Now, let us consider the proposed analysis of the control-like construction in Japanese in light of the ICH. As is obvious from Figures 3 and 4, what I have argued is that embedding *yoo* involves reduced clausal complements. Since they are transparent to A-scrambling, it should be that CP is absent (unless we assume that the CP that embeds *yoo* is somehow transparent, and this is like what Uchibori 2000 claims). In contrast, the NCI licensing is different between Figures 3 and 4, and this is another instance of the ICH effect. Also, the differences in the temporal/subject interpretations are also understood in terms of the ICH.

Figure 3 is a situation complement, realized as a TP; Figure 4 is an event complement, which is however realized as a ModP. I assume that modals are relative to an event rather than a world of evaluation (Hacquard 2006), so that it is still possible to have the *yoo* complement tenseless. In a sense, assuming that *yoo* can be with or without T is tantamount to decomposing *will*/*would* into T and *woll*, although unlike *woll*, *yoo* itself does not contribute to the future interpretation, only expressing the speaker's volition. Anyway, the differences in the temporal/-subject interpretations follow from the size of the complement clause.

However, things are not so simple as we expect; for instance, it is predicted that Figure 3, but not Figure 4, is compatible with an overt embedded subject. Notwithstanding this prediction, my language consultants and I do not see any robust contrast between the 'decide/think' complement and the 'try/do' complement.

(31) Taroo$_1$-wa [yotee-doori-ni zibun$_1$-ga syuppatu-si-yoo-to]
Taro-TOP plan-way-COP.INF self-NOM departure-do-MOD-REP
{kime/omot/?kokoromi/?si}-ta.
decide/think/try/do-PAST
Lit. 'Taro$_1$ {decided self e_1 to leave/think of self$_1$ leaving/tried self$_1$ to leave} as planned.'

However, the ICH does not say that the event complement must be the Theta domain. Since it is concerned with the minimal structure, such a complement can still be organized as some structure bigger than *v*P/VP. As we have seen, the NCI can be licensed when the selecting verbs are *kokoromi-* 'try' and *si-* 'do'. However, even those verbs seem incompatible with an NCI downstairs and its licensing negation upstairs when the embedded subject is overt.

(32) Taroo-wa [(?*zibun$_1$-ga) dare-ni-mo aw-oo-to]
Taro-TOP self-NOM who-DAT-also see-MOD-REP
{?kokoromi/si}-nakat-ta.
try/do-NEG-PAST
Lit. 'Taro didn't try to meet anyone.'

Although I would not say that the overt embedded subject renders (32) completely ungrammatical, its presence makes it much harder to accept it. Also, long passive becomes impossible if the embedded subject is overt:[8]

[8]I assume with Sudo (2012) that indexical shifting of pronouns are optional in Japanese.

(33) a. Taroo$_1$-wa [yotee-doori-ni kare$_1$-ga sono sigoto-o si-yoo-to
Taro-TOP plan-way-COP.INF he-NOM that job-ACC do-MOD-REP
] {kokoromi/si}-ta.
try/do-PAST
Lit. 'Taro tried to do the job as planned.'

b. * [Sono sigoto-ga]$_2$ Taroo$_1$-niyotte [yotee-doori-ni kare$_1$-ga t_2
that job-NOM Taro-by plan-way-COP.INF he-NOM
si-yoo-to] {kokoromi-rare/s-are}-te-i-ta.
do-MOD-REP try-PASS/do-PASS-ASP-COP-PAST
Lit. 'That job was tried by Taro that he would do as planned.'

In a similar vein, some of my informants reported that they can have two independent time adverbs even with *kokoromi-* 'try'/*si-* 'do' as in:

(34) a. ? Kyoo Taroo$_1$-wa [yotee-doori-ni asu sono sigoto-o
today Taro-TOP plan-way-COP.INF tomorrow that job-ACC
si-yoo-to] {kokoromi/si}-ta.
do-MOD-REP try/do-PAST
Lit. 'Today Taro tried to do the job tomorrow as planned.'

b. * Kyoo [sono sigoto-ga]$_2$ Taroo$_1$-niyotte [yotee-doori-ni
today that job-NOM Taro-by plan-way-COP.INF
asu t_2 si-yoo-to] {kokoromi-rare/s-are}-te-i-ta.
tomorrow do-MOD-REP try-PASS/do-PASS-ASP-COP-PAST
Lit. 'Today, that job was tried by Taro that he will do tomorrow as planned.'

Although cases like (6b) are bad, (34a) can still sound possible if the intended construal is such that Taro's attempt to arrange something for him to do the job tomorrow was done today. However, long passive is excluded as (34b) shows. In addition, the NCI licensing, as is expected, also becomes impossible:

(35) * Kyoo Taroo$_1$-wa [asu dono sigoto-mo si-yoo-to]
today Taro-TOP tomorrow which job-also do-MOD-REP
{kokoromi/si}-nakat-ta.
try/do-NEG-PAST
Lit. 'Today Taro didn't try to do any jobs tomorrow.'

These indicate that even the complement clauses of 'try' verbs in Japanese can have more structure than what is given in Figure 4. However, this is fine under

the ICH, since it is concerned with, as I said, the minimal structure, and the clause size can vary across languages or even within a language (or among speakers of a given language), to the extent that it obeys the ICH (e.g. no situation complement that is organized only in the form of the Theta domain).

6 Conclusion

In this chapter, I have investigated the nature of one specific sentential complementation in Japanese that has been considered to be a case of (OC) control: embedding the modal element, *yoo*. I have argued contrary to the literature that it does not exemplify a case of control, proposing a way to get such a construction via indexical shifting. It has also been argued throughout this chapter that the size of the complement clause can vary in accordance with a given selecting (matrix) predicate. This is captured by the ICH proposed by Wurmbrand & Lohninger (2020). Although their discussion is mainly concerned with data from several European languages, Japanese, as we have seen, nicely fits the relevant generalization, so the validity of it is now reinforced by one of the east Asian languages.

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Abbreviations

ACC	accusative	INF	infinitive	PRES	present tense
CAUS	causative	MOD	modal	RECIP	reciprocal
CL	classifier	NOM	nominative	REP	reporting particle
COP	copula	PASS	passive	TOP	topic
GEN	genitive	PAST	past tense		
DAT	dative	POL	polite		

References

Abusch, Dorit. 1985. *On verbs and time*. Amherst: University of Massachusetts. (Doctoral dissertation).

Abusch, Dorit. 1988. Sequence of tense, intensionality, and scope. In Hagit Borer (ed.), *Proceedings of the 7th West Coast Conference on Formal Linguistics*, 1–14. Stanford: CSLI Publications.

Anand, Pranav. 2006. *De de se*. Cambridge: Massachusetts Institute of Technology. (Doctoral dissertation).

Chomsky, Noam. 2008. On phases. In Robert Freidin, Carlos Otero & Maria-Luisa Zubizaretta (eds.), *Foundational issues in linguistic theory*, 133–166. Cambridge: MIT Press.

Deal, Amy Rose. 2020. *A theory of indexical shift: Meaning, grammar, and crosslinguistic variation*. Cambridge: MIT Press.

Fujii, Tomohiro. 2006. *Some theoretical issues in Japanese control*. College Park: University of Maryland. (Doctoral dissertation).

Fujii, Tomohiro. 2010. Split control and the principle of minimal distance. In Norbert Hornstein & Maria Polinsky (eds.), *Movement theory of control*, 211–244. Amsterdam/Philadelphia: John Benjamins.

Hacquard, Valentine. 2006. *Aspects of modality*. Cambridge: Massachusetts Institute of Technology. (Doctoral dissertation).

Hornstein, Norbert. 1999. Movement and control. *Linguistic Inquiry* 30(1). 69–96.

Hornstein, Norbert. 2003. On control. In Randall Hendrick (ed.), *Minimalist syntax*, 6–81. Malden: Blackwell.

Landau, Idan. 2000. *Elements of control: Structure and meaning in infinitival constructions* (Studies in Natural Language and Linguistic Theory). Kluwer Academic Publishers.

Martin, Roger. 2001. Null case and the distribution of PRO. *Linguistic Inquiry* 32(1). 141–166.

Moriyama, Takuro. 1990. Ishi no modariti ni tsuite [On the modality of will]. *Handai Nihongo Kenkyu* 2. 1–19.

Narrog, Heiko. 2009. *Modality in Japanese*. Amsterdam/Philadelphia: John Benjamins.

Nemoto, Naoko. 1991. *Chains and case positions: A study from scrambling in Japanese*. Storrs: University of Connecticut. (Doctoral dissertation).

Ogihara, Toshiyuki. 1995. The semantics of tense in embedded clauses. *Linguistic Inquiry* 26(4). 663–679.

Saito, Mamoru. 1992. Long distance scrambling in Japanese. *Journal of East Asian Linguistics* 3(1). 195–240.

Sauerland, Uli & Kazuko Yatsushiro. 2014. Japanese reported speech within the emerging typology of speech reports. In Shigeto Kawahara & Mika Igarashi (eds.), *Formal approaches to Japanese linguistics (FAJL 7)*, 191–202. MIT Working Papers in Linguistics.

Shimamura, Koji. 2015. Against control: Syntax and semantics of (embedded) *yoo* in Japanese. Ms., University of Connecticut, Storrs CT.

Shimamura, Koji. 2018. *The theory of quotative complementation in Japanese semanticosyntax*. Storrs: University of Connecticut. (Doctoral dissertation).

Sudo, Yasutada. 2012. *On the semantics of phi features on pronouns*. Cambridge: Massachusetts Institute of Technology. (Doctoral dissertation).

Takano, Yuji. 2010. Scrambling and control. *Linguistic Inquiry* 41(1). 83–110.

Uchibori, Asako. 2000. *The syntax of subjunctive complements: Evidence from Japanese*. Storrs: University of Connecticut. (Doctoral dissertation).

Wurmbrand, Susi. 2001. *Infinitives: Restructuring and clause structure* (Studies in Generative Grammar [SGG] 55). Berlin/New York: De Gruyter Mouton.

Wurmbrand, Susi. 2014. Tense and aspect in English infinitives. *Linguistic Inquiry* 45. 403–447.

Wurmbrand, Susi & Magdalena Lohninger. 2020. An implicational universal in complementation: Theoretical insights and empirical progress. In Jutta Hartmann & Angelika Wöllstein (eds.), *Propositional arguments in cross-linguistic research: Theoretical and empirical issues*. Berlin: Mouton de Gruyter.