AGAINST THE NON-RAISING ANALYSIS
OF JAPANESE RAISING-TO-OBJECT*

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Abstract

In this paper we argue that data for non-raising analysis presented in Hiraiwa (2001) should not
be considered real counterexamples against the raising analysis of Raising-to-Object (henceforth,
RTO) construction in Japanese. Hiraiwa shows intriguing examples: a certain lower clause
element can be placed before the accusative DP, from which he insists that the accusative DP
may remain in the same lower clause. Hiraiwa adopts Case-licensing by a long-distance Agree
operation. Putting aside the technical adequacy of Agree across a CP boundary, there still remains
another possibility for explaining the data at issue: the non-phasehood. Kanno (2008) proposes
that the raising construction should be counted as a non-phase. If the lower clause of RTO is not
a phase, Case-licensing can be accomplished within the same clause as v/V by Agree, avoiding
the controversial portion of crossing a CP boundary. In this way, Hiraiwa’s example is a strong
counterexample against the raising analysis of RTO. On the other hand, Tanaka (2002) regards
Hiraiwa’s examples as marginal sentences, and insists on the raising analysis out of CP. His
argumentation is valid and convincing, but there remains an unexplained fact that the examples
Hiraiwa presents sound acceptable for some native speakers including Hiraiwa and the author.
Then it is worth exploring whether Hiraiwa’s data are adequate to raising analysis of RTO or not,
in a more detailed way. Through examining the data, we will reach the conclusion that Hiraiwa’s
examples are not real counterexamples against the raising analysis.

Key words: Japanese RTO, non-phase, Case-licensing by Agree, Small Clause analysis

1. Introduction

One of the most controversial issues concerning Japanese RTO constructions is the category of the
lower clause (for convenience let us refer this as RTO complement clause). It is generally assumed
that it is a CP, for the particle -to is obligatory and it is conventionally regarded as a complementizer,
corresponding to that in English.¹

(1) Taro-wa Ziro-ga/-o tensai-da*(-to) omot-ta.
    Taro-Top Ziro-Nom/-Acc genius-Cop(-Comp) think-Past
‘Taro thought that Ziro was a genius.’

From a descriptive point of view, the CP analysis seems natural and allows little room for argument, but several researchers consider this view to be too naive. For instance, Kawai (2006) claims that the particle -to is not a complementizer, but a quotative particle, following Fukui’s (1986) proposal that Japanese does not have any complementizers corresponding to those in English. Actually in many cases it is difficult to differentiate the quotative -to from the complementizer -to. In this paper we will leave untouched the exact nature of the complementizer-like element -to. On the other hand, there is research showing that the maximum projection does not count as full-fledged CP, even if -to can be categorized as a complementizer. From a cross-linguistic point of view, Kanno (2008) proposes that there are two CPs: phase CPs and non-phase CPs, and he insists that raising complement, control complement, and ECM complement, be categorized as non-phase CPs. Kanno claims that non-phases cannot count as phase in spite of having a projection of CP. If this is correct, Japanese RTO complement is considered to be one of them, and the accusative DP of RTO complement clause does not need to move into the matrix clause, for Case-licensing is possible through Agree. Actually Hiraiwa (2001) shows an intriguing example which seems to be very convincing for the Agree-based case checking, as will be discussed later. This is a strong argument against raising analysis of RTO. Therefore the aim of this paper is to examine Hiraiwa’s data carefully, and to show that the argument on which they are based is not correct for Japanese RTO. That is, raising analysis is maintained. Let us start our discussion with a brief review of Kanno (2008) in Section 2.

2. Non-phasehood of RTO complements (Kanno (2008))

Kanno (2008) argues that the combination of an Agree feature and a Tense feature on CP determines whether the clause is a phase or not. The presence of both features makes the CP a phase, and the lack of either feature makes it a non-phase. Put differently, ordinary finite complements are phases because they have both an Agree feature and a Tense feature, while control complements and raising complements, which do not have one or both of the two features, are non-phases. Kanno summarizes the gist of his paper as follow:

<table>
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<tr>
<th></th>
<th>Agree feature</th>
<th>Tense feature</th>
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<tr>
<td>Finite complements</td>
<td>Yes</td>
<td>Yes</td>
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<tr>
<td>Control complements</td>
<td>No</td>
<td>No</td>
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<tr>
<td>Raising complements</td>
<td>Yes</td>
<td>No</td>
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<td>Accusative with Infinitives</td>
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Kanno proposes that the CP of finite clauses is a phase; the other three types of clauses should be non-phases. This means that operations cannot apply across finite CPs due to the PIC (Phase Impenetrability Condition), while operations can apply across the CPs of control and raising complements and ECM because they are non-phase.

Let us limit our comments to raising complements only. First of all, Kanno presents two pieces of evidence for the presence of CP in raising complement.

The first comes from Belfast English.

(3) a. John seems for to be better.
   b. I believe them for to have done it. (Henry (1995: 86))

Different from standard English, Belfast English has an overt complementizer for in both the raising-to-subject and the raising-to-object constructions.

The second piece of evidence is Irish English. As shown in the following example, the quantifier can be stranded in the initial position of the complement clauses of the raising construction.

(4) Who, did you expect your mother [all to meet t_i at the party]?

Assuming that wh-phrases move into the CP-spec via. intermediate landing sites successive-cyclically, a quantifier left in the position of the embedded clause indicates that the clause in question has a CP projection. Kanno concludes from these observations that the raising complement is a CP.

As shown in Table 1, raising complements are non-phase CP because of the absence of a Tense feature. Kanno cites the following example in modern Greek from Alexiadou and Anagnostopoulou (1999: 24).

(5) *O eafos tu arxizi na ton anisixise
    the self his-Nom begins–3sg subj CL-Acc worry–3sg-Past

   ‘He started being worried about himself.’

Modern Greek is known as a language with inflected infinitives, but the complement clause cannot bear temporal morphology. Kanno also points out that temporal morphology such as -ed or -en cannot appear on verbs in complement clauses in raising constructions of English.

As is generally known, the verbs which can participate in this construction are mainly verbs of thinking and feeling (or epistemic verbs) which take [+stative] complements. Although judgments may vary from person to person, it is generally accepted that raising out of [+past] complement is apt to be degraded. Kitagawa (1986) claims that in Japanese, CPs with [+past] T are barriers, while CPs with [-past] T are not. Thus, it may be concluded that there is no Tense feature in raising complement.

Supporting evidence for the presence of an Agree feature is quantifier stranding, as shown below:

(6) Mary believes the students, [ [all t_i to [ t_i know French]]

In this example, the quantifier all is stranded at the TP-Spec. The permissible position of the floating quantifier shows the position to which the DP the students moves, and this indicates that the subject moves through the TP-Spec to its final position in the matrix. According to Kanno (2008), this amounts
to saying that the DP is attracted to the TP-Spec by an Agree feature.

From this observation we may conclude that the CP of the raising complement is a non-phase. In other words, the CP at issue is transparent for operations to and from its higher clause. Kanno shows that this prediction is borne out with three kinds of evidence: movement to the matrix clause, clitic climbing, agreement across CP.

As is stated in the binding principles (A) and (B), the anaphor must be bound in its binding domain and a pronoun must be free in its domain. As is indicated in (7), the DP must be an anaphor and not a pronoun. It follows that the DP is in the same clause where the antecedent Taro is contained, which is the evidence for raising out of the lower clause. It is conventionally accepted that A-movement out of CP is not allowed, but under minimalist theorizing, the fact that it is permitted shows the lower CP of the RTO is not a phase, but a non-phase.

(7) Taro, believes himself,/*him, to be honest.

The second piece of evidence concerns clitic climbing in Italian and French.

(8) Lo sembra capire t
it seems understand-Inf
‘He seems to understand it.’

(9) On l’estime t entre sage.
One him thinks to-be wise
‘People think that he is wise.’

In (8) the clitic originating after capire ‘understand’ moves to the matrix clause. In (9) the embedded subject clitic moves into the matrix clause. Usually a clitic cannot move across a clause boundary, but the above data show that the CP is not a phase.

We can predict that the Agree operation can permeate the CP of raising complements. Observe the following examples.

(10) sembrano intervener-ne molti t
seem-3pl to intervene-of them many

(Alexiandau and Anagnostopoulou (1998: 514))

(11) Nu-ii par profesoarei [[ a fi sinceri copii asista ]]
not-Dat.CL.3sg seem.3pl teacher.Dat Inf be honest.pl kids-the. Nom these

(Alboiu (2005: 514))

In (10) the verb of the matrix clause sembrano ‘seem’ bears inflection for third person and plural, which shows that an Agree(ment) hold between the matrix verb and the embedded DP molti ‘many.’ In (11), an Agree relation holds between the matrix verb and the embedded nominative DP copii asista ‘these kids.’ Given the Agree mechanism, ‘long-distance’ agreement can explain the relation between the matrix verb and the embedded DP to enter into the Agree relation. We can conclude from this that the matrix verb directly agrees with the DP in the lower clause across CP, and it follows that the CP is a
If the RTO complement is not a phase, then any syntactic operation can involve elements in the clause. Put differently, the accusative DP does not need to move to the CP-edge, and the case is assigned/checked in situ, without dislocation. It amounts to saying that raising analysis of Japanese RTO is not sustained.5

3. Against the non-phase account

In the previous section we have seen Kanno’s characterization of Phase distinction. Although Kanno’s approach seems to be of interest in that he discusses it cross-linguistically, we need to examine in detail whether this may be applied to Japanese RTO or not. Fortunately we can make reference of the previous research of Hiraiwa (2001), in which he argues that the DP can be case-checked in situ in the RTO complement. Hiraiwa (2001), the main proposal of which is an optional movement analysis of Japanese RTO, claims that the accusative complement subject DP in RTO may stay in the embedded clause. The portion of case-licensing which takes place in situ can be regarded as a variant of non-phase approach. This section begins with Hiwairn's argumentation on case-licensing in situ. Then we will consider a review of Tanaka (2002), where Tanaka refutes the possibility of staying at the original position in the lower clause. The point to be observed is that we need to look more carefully into Hiraiwa’s data, for Tanaka’s argument against Hiraiwa’s analysis is based upon the difference of grammaticality, and it does not explain the data at issue directly. In so doing, we can add another piece of evidence against the non-phase approach to Japanese RTO.

3.1. Hiraiwa (2001)

First, let us review in brief Hiraiwa’s (2001) evidence for the case-licensing of the DP in the lower clause. Consider the following examples.

(12) a. John-ga {CP mada Mary-ga kodomo-da to} omot-ta.
   John-Nom still Mary-Nom child-Cop Comp think-Past
   ‘John thought that Mary was still a child.’

b. John-ga {CP mada Mary-o kodomo-da to} omot-ta.
   John-Nom still Mary-Acc child-Cop Comp think-Past
   ‘John thought Mary to be still a child.’

In example (12a) the embedded adverb mada ‘still’ is put in front of the subject DP of the RTO complement. This is perfectly grammatical because the adverb is within the same clause as the modified predicate, kodomo-da. Hiraiwa (2001) points out that grammaticality does not change even if we use accusative Case as shown (12b). In this way (12) shows that case markers can vary between nominative -ga and accusative -o freely, even in the situation where the embedded adverb is placed in
front of the complement DP. What should be noted is that the adverb is not within the matrix clause in an unambiguous way. If we put this kind of adverb in the matrix clause, the sentence turns out to be ungrammatical.

    John-Nom still stupidly Mary-Nom child-Cop Comp think-Past
   ‘Stupidly John thought that Mary was still a child’

The ungrammaticality of (13) does not come from the double appearance of adverbs, as shown in (14).

(14) John-ga orokanimo mada Mary-ga/o kodomo-da to omot-ta.
    John-Nom stupidly still Mary-Nom/Acc child-Cop Comp think-Past
   ‘Stupidly John thought that Mary was still a child’

Thus, it seems reasonable to conclude that the ungrammaticality of (13) derives from the inadequate location of the embedded adverb which is put in the matrix clause. According to Hiraiwa (2001), this can be straightforwardly explained on the assumption that a prove (i.e. v/V) of the Matrix clause establishes a long distance-Agree relation with an goal (i.e. the DP in situ) within an embedded clause beyond the adverb mada which is supposed to be within the lower clause. This observation is a convincing reason to believe that Mary-o remains in the lower clause, as Mary-ga does.


    John-Nom Mary-Acc the job-Dat suitable-Neg-Pres C thought
   ‘John thought that Mary is not suitable for the job.’

b. [John-ga [t / t muite-nai to] omot-ta-no] -wa
    John-Nom suitable-Neg-Pres C think-Pst-Adn C -Top
    Mary-o sono sigoto-ni da.
    Mary-Acc the job-Dat Cpl
   ‘(Lit.) It is Mary to the job that John considers to be not suitable.’

c. [ t [t sono-sigoto-ni muite-nai to] omot-ta-no] -wa
    the job-Dat suitable-Neg-Pres C think-Pst-Adn C -Top
    John-ga Mary-o da.
    John-Nom Mary-Acc Cpl
   ‘(Lit.) It is John, Mary that considers to be not suitable for the job.’

d. ?*[ t [ Mary-o t muite-nai to] omot-ta-no] -wa
   Mary-Acc suitable-Neg-Pres C think-Pst-Adn C -Top
    John-Nom the job-Dat Cpl
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‘(Lit.) It is John, to the job that considers Mary to be not suitable.’
Hiraiwa argues that as illustrated in (15b) and (15c), an accusative DP can be clefted either with a matrix element or with an embedded element, while a matrix subject cannot be clefted with an embedded element, as exhibited in (15d). Hiraiwa concludes from this contrast that syntactic raising is optional in Japanese RTO.

Tanaka (2002), however, claims that Hiraiwa’s conclusion cannot be maintained because of the marginal status of the data that Hiraiwa deals with. In this subsection we will consider Tanaka’s (2002) argumentation against Hiraiwa (2001). Tanaka insists that Hiraiwa’s data is dubious. For example, the grammaticality of sentence (12b) is not clear. He argues that the judgment seems to be very subtle. When we place the matrix verb with another RTO verb, dantei-suru ‘decide’, the sentence becomes ungrammatical.

(16) * John-ga mada Mary-o kodomo-da-to danteisi-ta.
   John-Nom still Mary-Acc child-Cop-Comp decide-Past
   ‘John decided that Mary was still a child.’

In addition, Tanaka questions the following sentence with the accusative DP in (17b), which Hiraiwa (2001: 72) considers to be grammatical.

    John-Nom Mary-Nom/Acc the job-Dat suitable-Neg-Pres-C think-Past
    ‘John felt that Mary is not suitable for the job.’

   John-Nom the job-Dat Mary-Nom/Acc suitable-Neg-Pres-C think-Past

These sentences are judged as marginal, according to Tanaka, and Tanaka (2002: 647) points out in footnote 7 that Kaneko (1988: 284) judges similar examples as ungrammatical when the dative phrase is long-scrambled, as shown below.

(18) a. Tanaka-ga Yamada-ga/o eigo-ni kuwasii-to omotte i ru
    Tanaka-Nom Yamada-Nom/Acc English-Dat familiar-C thinking is
    ‘Tanaka thinks that Yamada is familiar with English.’

b.? *Eigo-ni Tanaka-ga Yamada-o kuwasii-to omotte i ru
    English-Dat Tanaka-Nom Yamada-Acc familiar-C thinking is

c. Masao-ga Taro-ga/o Kyoko-ni horete i ru-to omotte i ru
    Masao-Nom Taro-Nom/Acc Kyoko-Dat in love is-C thinking is
    ‘Masao thinks that Taro is in love with Kyoko.’

d.?* Kyoko-ni Masao-ga Taro-o horete i ru-to omotte i ru
    Kyoko-Dat Masao-Nom Taro-Acc in love is-C thinking is
These examples concern the long-scrambling. Now let us examine the following sentences where the
dative phrase is put before the accusative DP.

(19) a. (?)Tanaka-ga eigo-ni Yanada-ga kuwasii-to omotte iru
Tanaka-Nom English-Dat Yamada-Nom familiar-C thinking is
‘Tanaka thinks that Yamada is familiar with English.’

b. *Tanaka-ga eigo-ni Yanada-o kuwasii-to omotte iru
Tanaka-Nom English-Dat Yamada-Acc familiar-C thinking is

c. Masao-ga Kyoko-ni Taro-ga horete iru-to omotte iru
Masao-Nom Kyoko-Dat Taro-Nom in love is-C thinking is
‘Masao thinks that Taro is in love with Kyoko.’

d. *Masao-ga Kyoko-ni Taro-o horete iru-to omotte iru
Masao-Nom Kyoko-Dat Taro-Acc in love is-C thinking is
As shown in (19b) and (19d), the sentences with long-distance sacrambling to the post-subject position
produces a degraded permutation. The data contradict to what Hiraiwa claims.

Secondly, Tanaka poses a question about the grammaticality judgment of Hiraiwa’s Clefts with
multiple foci. According to his informants (five native speakers of Japanese), the sentences (15b) and
(16c) are judged as not fully grammatical. Tanaka examines Koizumi’s (1995) original observation
on multiple foci cleft construction and insists that all the sentences that was originally presented in
Koizumi (1995) contain a floating quantifier, which is irrelevant to the formation of cleft construction.

(20) Mary-ga t, t, t, k ageta-no-wa John-ni, ringo-o, 3-tuk-da.
Mary-Nom t, t, t, k give-NM-Top John-Dat, apple-Acc, 3-CLk Cop
‘It was [to John], threek applesj that Mary gave t, t, t,’

Tanaka points out that this sentence becomes quite marginal, without the quantifier.

(21) ??Mary-ga t, t, t, k ageta-no-wa John-ni, ringo-o, 3-da.
Mary-Nom t, t, t, k give-NM-Top John-Dat, apple-Acc, Cop
‘It was to John, applesj that Mary gave t, t,’

Furthermore, the following ungrammaticality shows that the floating quantifier must be the final
element in the focus position.

(22) *Mary-ga t, t, t, k ageta-no-wa 3-tuk John-ni, ringo-o, 3-da.
Mary-Nom t, t, t, k gave-NM-Top 3-CLk John-Dat, apple-Acc, Cop
‘It was [to John], threek applesj that Mary gave t, t,’

In addition, the host DO for the floating quantifier must be in the focus position. When it is located
within the presupposition, the sentence is ungrammatical, as shown below.

(23) *t, t, ringo-o t, k ageta-no-wa Mary-ga, John-ni, 3-tuk-da.
t, t, apple-Acc t, k gave-NM-Top Mary-Nom, John-Dat, 3-CLk-da.
‘It was Mary, [to John], threek that t, gave t, apples t,’
From the above observation and the fact that Koizumi avoids multiple foci cleft sentences without a quantifier, Tanaka concludes that the grammaticality judgment on which Hiraiwa’s argument is based are highly questionable. Although it is still difficult to determine the precise properties of this construction, the clause mate condition is not as clear as Hiraiwa (2001) supposes.

4. Alternative analysis for Hiraiwa’s data

So far we have considered Tanaka’s arguments against Hiraiwa’s (2001) analysis, which can be regarded as a variant of the non-phase approach to RTO. We believe that Tanaka’s arguments against Hiraiwa’s data are intriguing and convincing enough to reject the non-phase approach, but there remains one point that cannot be missed. Although Tanaka’s argument against Hiraiwa seems to be logically valid, he does not explain Hiraiwa’s data directly. Instead, he appeals to the difference of grammaticality judgments. Of course Tanaka’s argumentation based on other similar examples makes sense, but it is a fact that there are some Japanese native speakers who regard examples like (12b) as grammatical/acceptable. It remains unsolved. Therefore, we need to explore the reason why some people consider these examples to be acceptable/grammatical. In this section, we will analyze the two typical sentences Hiraiwa judges to be grammatical/acceptable in a detailed way, to try to discover why they can be considered acceptable. The following are the sentences in question.

(24) a. John-ga mada Mary-o kodomo-da to omot-ta. (= (12b))
   b. John-ga sono sigoto-ni Mary-o t1 muite-nai-to kanzita. (= (17b))

These sentences show that embedded adverbial elements like mada can be placed in front of the accusative DP. It is known that this sort of behavior is usually not allowed. The following is the example of control construction.

   Taro-Nom quickly Hanako-Dat that problem-Acc solve-C-Dat said
   ‘Taro told Hanako to solve that problem quickly.’

In this example it is almost impossible to associate the adverb subayaku ‘quickly’ with the embedded predicate toki ‘solve’.6

Thus, the behavior in (24) is hard to explain under the raising analysis of RTO, but it can be explained straightforwardly under the Agree-based/non-phase analysis, for the accusative DP remains within the RTO complement under the latter approach. However, Tanaka argues that the sentences in (24) are problematic. They are marginal and do not count as reliable.

What we need to do here is to examine the data carefully and to explore whether they count as a counterexample against raising analysis, or not. Let us consider sentence (24b) at first. We believe that there is one diagnostic to make sure that the accusative-marked DP Mary-o does not belong to the same clause as the predicate muite-nai: negative polarity item of indeterminate pronoun. Observe the
following contrast.

    Taro-Nom anything-Dat-also Jiro-Acc suitable-Neg-Pres C thought
    “Taro thought Jiro was not suitable to anything.”

b. Taro-ga nani-ni-mo Jiro-ga muite-nai to omot-ta.
    Taro-Nom anything-Dat-also Jiro-Nom suitable-Neg-Pres C thought

The accusative DP is not allowed in (26a), while the nominative DP can be in (26b). My informants judged (26a) to be ungrammatical. The contrast in (26) can be explained by the generally accepted clause-mate condition: an indeterminate pronoun with the Q-particle -mo must be in the same clause with a negational element, -na(i). (See McGloin (1976) for the clause-mate condition.) In the grammatical sentence (26b) this condition is maintained, but it is not in the ungrammatical sentence (26a). This means that in the latter case nani-ni-mo ‘to anything’ is the different position from than in (26b). We do not know the precise position of the phrase in both cases, but what is relevant is that if the accusative DP were to stay at the same position as the nominative DP, as proposed in the optional analysis (and in the non-phase approach), the contrast between (26a) and (26b) would remain unsolved. Thus, we may conclude that one of the examples of Hiraiwa’s data is not convincing. Note that we can reject one example, without recourse to the difference of grammaticality.

Our second examination is concerned with the grammaticality of (24a). What Tanaka does is to pose a question for subtle judgment, with example (16) more confidently judged. In fact, Tanaka does not mark this example as ungrammatical explicitly. Some Japanese native speakers I have asked reported that it sounds somewhat degraded, but acceptable, while others said that it is naturally acceptable. Even if example (16) is judged as being far from perfectly grammatical, still some people are inclined to take (24b) to be acceptable, or grammatical. For those who judge (24a) as ungrammatical, it may not be necessary to make a closer examination of it. But for those who can accept (24a), we need to consider the reason for this. Our claim here is that those who accept (24a) may analyze it as another construction similar to RTO.

Japanese has another construction of which structure is similar to RTO, which has been excluded in the tradition of Japanese generative research, with the exceptions of Takahasi (2002) and Mihara (2008). Let us observe the following examples.

(27)  a. Watasi-wa kyokuchoo-no koodoo-o fusin-ni omotta.
    I-Top boss-Poss behavior-Acc suspiciously thought
    ‘I thought the boss’s behavior to be suspicious.’

b. Naoto-wa kyuyu-no kooi-o arigataku kanjita-yooda.
    Naoto-Top classmate-Poss favor-Acc valuably felt-seem
    ‘It seems that Naoto felt that his classmate’s favor is valuavly.’ (Mihara (2008: 50))

As you may notice, there are some differences between this construction and the typical RTO
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construction. First, a phrase following the accusative case-marked DP is an adverb. Secondly it is lacking the complementizer -to. Thirdly we cannot alter the case from accusative Case to nominative Case, as illustrated below.

     I-Top boss-Poss behavior-Nom suspiciously thought  
     b. * Naoto-wa kyuyu-no kooi-ga arigataku kanjita-yooda.
     Naoto-Top classmate-Poss favor-Nom valuably felt-seem

It has been generally shown in Japanese generative syntax that Tense or some T-related element can license nominative Case, and this fact corresponds to the fact that the phrase following the DP is an adverb which does not have any T element with it. These differences seem to have kept us from studying this type of sentence, although we have intensively studied Japanese RTO since the early 1970’s. Actually Kawai (2006) analyzes RTO as a small clause, but excludes this type from his analysis. Kawai (2006: 333) mentions the following reasons: i) it disallows nominal counterparts entirely, and (ii) the number of epistemic verbs compatible with it is very small, with the following examples presented.

(29)  a.* John-wa Mary-o tensai-de omotta.
     John-Top Mary-Acc genius-be_stem thought  
     ‘John thought Mary to be a genius.’
     b.* John-wa Mary-o kawai-ku dantei-shita/sinjita.
     John-Top Mary-Acc cute_stem judged/believed.  
     ‘John judged/believed Mary to be cute.’

Putting aside the definition problem for now, we will tentatively refer to this type of sentence as Small Clause in this paper, following Takahashi (2002).7

We claim that sentence (24a) can be analyzed as this type of Small Clauses, though the appearance is different: the former has the same structure as RTO, with a complementizer -to, while the latter has an adverb after the accusative DP.

Let us examine the semantic nature of Small Clauses. Consider the following examples.

(30)  a. Taro-wa Jiro-o kawai-ku omotta/kanjita.
     Taro-Top Jiro-Acc cutely thought/felt
     Hanako-wa Taro-o so omotta/kanjita.
     Hanako-Top Taro-Acc so thought/felt
     ‘Taro thought Jiro to be cute. Hanako thought Taro to be so.’
     b. Taro-wa Jiro-o sagi-si-da-to omotta/kanjita.
     Taro-Top Jiro-Acc swindle-Cop-C thought/felt
     Hanako-wa Taro-o so da-to omotta/kanjita.
     Hanako-Top Taro-Acc so Cop-C thought/felt
     ‘Taro thought Jiro to be a swindle. Hanako thought Taro to be so.’
This indicates that the pro-form so can be used for the adverbial element kawai-ku in (30a), and for the nominal element sagisi. Then observe the following.

(31)  
a. Taro-wa Jiro-o sagi-si-da to omotta/kanjita.
    Taro-Top Jiro-Acc swindle-Cop-C thought/felt
b. ???/* Hanako-wa Taro-o so omotta/kanjita.
    Hanako-Top Taro-Acc so thought/felt
   ‘Taro thought Jiro to be a swindle. Hanako thought Taro to be so.’

If these judgments are correct, the RTO complement predicate with the complementizer -to (i.e. sagisi-da to) cannot be replaced with so. We may conclude form this contrast that the pro-form so can replace either adverbs or nominals, but not a sequence of ‘nominal + COP + C’. Keeping this in mind, consider the following example.

(32) Taro-wa Jiro-o mada kodomo-da to omotta.
    John-Nom Jiro-Acc still child-Cop-C thought
Hanako-wa Taro-o so omotta.
    Hanako-Top Taro-Acc so thought
   ‘John thought Jiro to be still a child. Hanako thought Taro to be so.’

In this example the phrase mada kodomo-da to is replaced with so. Note that despite of the restriction of so-replacement discussed above, this sentence sounds acceptable/grammatical. If we are on the right track, this indicates that the distinction between adverbs/nominals and ‘nominal + COP + C’ does not hold in (32). In other words, the sequence mada kodomo-da to in (32) is recognized as different from that of sagisi-da to in (31). Therefore, to investigate what causes this difference could provide a clue to this puzzle.

What we need to notice here is whether the phrase in question needs subjective judgment. For example, the phrase mada kodo-da ‘is still a child’ allows subjectivity. In this case we can use the pro-form. Let us see the following contrast in order to confirm this.

(33)  
a. Taro-wa ano norimono-o baiku-da to omotta.
    Taro-Top that vehicle-Acc bike-Cop C thought
   ‘Taro thought that vehicle to be a bike.’
b.* Hanako-wa kono norimono-o soo omotta.
    Hanako-Top this vehicle-Acc so thought
   ‘Hanako thought this vehicle to be so.’

(34)  
a. Taro-wa ano norimono-o baiku-no-yoo da to omotta.
    Taro-Top that vehicle-Acc bike-Gen-like-Cop C thought
   ‘Taro thought that vehicle to be something like a bike.’
b. Hanako-wa kono norimono-o soo omotta.

If we are on the right track, we can analyze the sentence in question as a variant of Small Clauses.
Then, observe the following examples.

   I-Top Rokko-mountain-Acc than usual greenly felt
   `I felt Mt. Rokko to be more green than usual.'
   b. Boku-wa fudanyori Rokko-zan-o aoku kanjita.
      I-Top than usual Rokko-mountain-Acc greenly felt

As in (35b), the modifier modifying the adverb can be placed in front of the DP. We believe that this is the reason sentence (24a) can be judged as acceptable/grammatical. In other words, when we recognize sentences like (24a) as Small Clauses, we can allow adverbial elements like *mada* to be placed in front of the accusative DP. This is because there is no clause boundary between the DP and the following adverb, and the elements modifying the adverb can be scrambling to the place before the DP within the same clause.

We may conclude that sentences like (24a) may sound acceptable/grammatical to some Japanese native speakers, due to the syntactic interpretation of the construction as Small Clauses. Thus, we do not need to take into consideration data like (24a) which Hiraiwa considers to be a counterexample against obligatory raising of RTO.

5. Conclusion

In this paper we have argued that data for non-raising analysis presented in Hiraiwa (2001) should not be considered real counterexamples against the raising analysis. Hiraiwa’s data, in which some lower clause elements can be placed before the accusative DP, show that the accusative DP may stay in the lower clause. Instead of appealing to the difference of grammatical judgment, we have presented some diagnostic to show that Hiraiwa’s examples are not real counterexamples. Using negative polarity items, we have shown that some preposed elements are placed into the matrix clause, which means that Hiraiwa’s judgment may be affected by some other factors, and we do not consider this type of data to be real counterexamples. Other elements, which appear to be placed at the position at issue, are the elements within the same clause, for some Japanese native speakers regard the sentence as a variant of Small Clauses in which there is no clause boundary and the DP, and the adverbial elements are members of the same clause, and scrambling is possible.

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Notes

1. As is well-known, the complementizer -to can be deleted in the Kansai dialect of Japanese, as pointed out by Saito (1986). This deletion takes place not only in finite complement clauses, but also in RTO complements, as illustrated below.

   (i) Taro-wa Jiro-o usotsuki-ya (tte) iuteta.
   See Kishimoto (2006) for a phonetically unrealized complementizer.

2. Kanno (2008) mentions in Footnote 29 that Korean, Quechua, Malagasy, as languages having an overt complementizer in the RTO complement. In the case of Japanese, although we still need to try to understand the exact nature of this particle -to, we will accept the assumption that -to is a complementizer in this paper.

3. It is not clear that this is the case, when faced with the following example.

   (ii) Barnett believed the doctor to have examined Tilman. (Davies & Dubinsky 2004: 3)

4. Hiraiwa (2005: 117), for example, reports “there is some speaker variation, but the past tense in (iii) is not totally unacceptable.

   (iii) Boku-wa Hakako-no-koto-o kawaikat-ta to omot-ta.

5. Kanno (2008) assumes that the accusative DP is raised to the matrix without stopping at CP-edge, for the embedded CP is a non-phase CP. This amounts to supporting the one-fell-scoop movement to the matrix. But this approach gets caught up in the RTO-IPB paradox, as discussed in Akaso (2009). If the accusative case of the DP (= indeterminate pronoun) is checked off in situ by Agree (because of no PIC), indeterminate pronouns stays within the domain of mo, which means that the sentence is grammatical. See Akaso (2009) for the paradox.

6. It is known that accusative DPs can be scrambled into the matrix clause, as shown in (v).

   (v) Tago-ga sono mondai-o Hanako-ni toku yoo-ni i-tta.

7. The term ‘small clauses’ is a descriptive term for less than TPs in size: no Tense, and sometimes no verb. The definition is vague and varies among researchers. In Japanese, for instance, the underlined part of the following example sentence is sometimes placed under the same term. (See Takahashi (2002) among others.)

   (vi) Taro-wa Hanako-o kawai-ku omot-ta.

       Taro-Top Hanako-Acc cute think-Past

       ‘Taro thought that Hanako was cute.’

In addition to the sloppy definitions of small clauses, the internal structure of small clauses is far from clear.

References

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