# Two Types of Accusative Subjects in Japanese\*

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## 1 Introduction

In Japanese, the subject in the complement clause can be optionally marked with Accusative Case, which is exemplified in (1).

(1) John-wa Mary-ga/-o tensai-da to omotta/danteisita. John-TOP Mary-NOM/-ACC genius-COP Comp thought/concluded 'John thought/concluded Mary was a genius.'

In this paper, I call the Accusative-marked subject "Accusative Subject" (AS) and constructions with an AS as in (1) "Accusative Subject Construction" (ASC).

In the previous studies, three different analyses have been developed for ASCs in Japanese: the Raising-to-Object analysis (Kuno 1976, Ura 1994, Sakai 1998, Bruening 2001, and Tanaka 2002, among others), the ECM analysis (Hiraiwa 2001, among others), and the Major Object (or prolepsis) analysis (Saito 1983, Oka 1988, Hoji 1991, Takano 2003, among others).

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In the Raising-to-Object analysis, an AS is base-generated in the embedded clause and undergoes (overt or covert) movement to the matrix *vp*-Spec to check Accusative Case via Spec-Head agreement, as illustrated in (2), where order is irrelevant.

(2) John [
$$_{v\mathrm{P}}$$
 Mary $_{i}$ -ACC  $v$  [ $_{\mathrm{VP}}$  think [ $_{\mathrm{CP}/\mathrm{IP}}$   $t_{i}$  is a genius]

In the ECM analysis, an AS is base-generated in the embedded clause and checks Accusative Case in the embedded CP-Spec via Probe-Goal Agreement (and optionally moves to the matrix clause), as illustrated in (3).

(3) John [
$$_{vP}$$
  $\nu$  [ $_{VP}$  think [ $_{CP}$  Mary-ACC is a genius]

Although the two analyses differ in detail, which is attributed to the theory of agreement, they share the same assumption about the position where ASs are base-generated; ASs are base-generated inside the embedded clause.

Contrasted to these two analyses, the Major Object analysis assumes that ASs are base-generated in the matrix clause. In this analysis, a pro occupies an embedded subject position and it is bound by an AS in the matrix clause, as illustrated in (4).

(4) John [
$$_{vP}$$
 Mary<sub>i</sub>-ACC  $v$  [ $_{VP}$  think [ $_{CP}$  pro<sub>i</sub> is a genius]

As the Raising-to-Object/ECM analyses and the Major Object analysis assume differently, it is controversial whether ASs are base-generated in the matrix clause or in the embedded clause. Empirically, some facts suggest that the former assumption should be correct, and others suggest that the latter should be correct.

In this paper, I show that this conflict can be solved by proposing that the base-generated position of ASs varies depending on the predicate that takes the embedded clause with an AS. More concretely, a closer examination of the behavior of ASs in three diagnostic tests reveals that ASs behave differently depending on the predicate taking the complement clause. The different behavior of ASs can be explained given a proposal that ASs are base-generated in the embedded clause when the complement clause is selected by a predicate such as *omou* "think", whereas they are base-generated in the matrix clause when the complement clause is selected by a predicate such as *danteisuru* "conclude", as illustrated in (5).

## (5) Proposal

a. "think"-type predicate: 
$$omou$$
 "think",  $kanjiru$  "feel" etc.

Optional Movement —

John [ $_{v\mathrm{P}}$   $v$  [ $_{\mathrm{VP}}$  think [ $_{\mathrm{CP}}$  Mary-ACC is a genius]

b. "conclude"-type predicate: danteisuru "conclude", kimetukeru "decide prematurely" etc.

John [ $_{vP}$  Mary $_i$ -ACC v [ $_{VP}$  conclude [ $_{CP}$  pro $_i$  is a genius]

Given the present proposal, it is possible to put a period to a long debate on analyses of ASCs in Japanese.

## 2 CP-Fronting and Proper Binding Condition

Kuno (1976) observes that the complement clause in ASCs cannot be preposed to the left of an AS, as exemplified in (6).

- (6) a. \*John-ga [baka-da to] $_i$  Bill-o  $t_i$  omotteiru.

  John-NOM fool-COP Comp Bill-ACC is.thinking

  'John thinks Bill is a fool.' (Kuno 1976: 35, slightly modified)
  - b. \* [baka-da to] $_i$  John-ga Bill-o  $t_i$  omotteiru. fool-COP Comp John-NOM Bill-ACC is.thinking 'John thinks Bill is a fool.' (Tanaka 2002: 639)

The ungrammaticality of the sentences in (6) can be accounted for by the Proper Binding Condition (PBC), which states that a trace must be bound (Fiengo 1977), given that an AS is base-generated in the embedded clause. Assuming that an AS is base-generated inside the embedded clause, the fronted embedded clause contains an unbound trace of the AS if it moves across the AS, which causes a violation of the PBC, as illustrated in (7).

(7) \* [
$$t_i$$
 is foolish]<sub>i</sub> John thinks  $Bill_i t_i$  (order irrelevant)

Thus, the unacceptability of sentences like (6) has been assumed to be evidence for the Raising-to-Object/ECM analyses. 1,2

Note, however, that in the reported unacceptable sentences, the predicate taking the complement clause is the verb *omou* "think". A new observation in this paper is that the acceptability of a sentence involving CP-fronting over an

As for a reason why sentences like (6) are more acceptable than those as in (i), I leave it for further research.

 $<sup>^{1}</sup>$  Hoji (1991) reports that his informants judged sentences like (6) as being not as bad as the sentences with a PBC violation as in (i).

 <sup>\* [</sup>Mary-ga t<sub>i</sub> itta to]<sub>j</sub>, John-wa Tokyo-ni<sub>i</sub> t<sub>j</sub> omotta.
 Mary-NOM went Comp John-TOP Tokyo-to thought
 'John thought that Mary went to Tokyo.'

 $<sup>^2</sup>$  Takano (2003) argues that under the Major Object analysis, sentences like (6) are ungrammatical because the major object that functions as topic does not precede the rest of the embedded clause that functions as its comment, which violates the aboutness condition. Given Takano's (2003) analysis, however, it is unclear why the sentence in (8) is acceptable.

AS is improved if the matrix verb is changed to a predicate such as *danteisuru* "conclude".

(8) (?) [Sono-jiken-no hannin-da to] keisatu-ga san-nin-no the-case-GEN culprit-COP Comp police-NOM three-CL-GEN otoko-o danteisita. man-ACC concluded

'The police concluded that three men were culprits of the case.'

Although the sentence in (8) is not perfectly acceptable for some speakers, there is a clear contrast between (8) and (9a), which are a minimal pair. The ungrammaticality of the sentence (9a) can be explained by the PBC as illustrated in (9b)

- (9) a. \*[Sono-jiken-no hannin-da to] keisatu-ga san-nin-no the-case-GEN culprit-COP Comp police-NOM three-CL-GEN otoko-o omotta. man-ACC thought
  - 'The police thought that three men were culprits of the case.'
  - b. \* [ $t_i$  are culprits of the case]<sub>j</sub> the police thought [three men]<sub>i</sub>  $t_j$

Given that the unacceptability of the sentences in (6) and (9a) results from a violation of the PBC, the acceptability of the sentence in (8) suggests that there should be no trace of an AS in the fronted complement clause taken by the predicate *danteisuru* "concluded". This is incompatible with the Raising-to-Object/ECM analyses according to which ASs in ASCs are always basegenerated in the complement clause. The grammaticality of the sentence in (8) can be explained given the present proposal that an AS is base-generated in the matrix clause and a pro occupies a subject position in the complement clause when the complement clause is selected by a "conclude"-type predicate, as illustrated in (10).

- (10) [  $pro_i$  are culprits of the case] $_j$  the police  $\underline{concluded}$  [three men] $_i$  t $_j$
- In (10), no trace is present in the fronted embedded clause, and therefore no violation of the PBC occurs, just as in the acceptable case where the complement clause is fronted in control constructions.
- (11) [ $\operatorname{pro}_i \operatorname{Tokyo-e} \operatorname{iku} \operatorname{yooni}]_j \operatorname{John-ga} \operatorname{Bill-o}_i \operatorname{t}_j \operatorname{settokusita}.$  Tokyo-to go Comp John-NOM Bill-ACC persuaded 'John persuaded Bill to go to Tokyo.'

Thus, the proposed analysis makes it possible to explain the acceptability difference between (8) and (9a).

To summarize, as shown by (8) and (9a), the acceptability of a sentence with CP-fronting across an AS differs depending on the predicate that selects the fronted complement clause. The difference suggests that whether the fronted complement clause contains a trace of an AS or not differs depending on the predicate that takes the complement clause. Given the present proposal that an AS is base-generated in the embedded clause with "think"-type predicates, whereas it is base-generated in the matrix clause with "conclude"-type predicates, as illustrated in (5), it is possible to explain the acceptability difference.

## 3 De re/De dicto Reading

As argued in Takano (2003), an AS, contrasted to an embedded Nominative subject, must have a wide scope with regard to the matrix predicate (i.e., it must be interpreted as *de re*). Therefore, the sentence in (12b), but not the one in (12a), implies that three men exist in the actual world, and it can never be true under the context where no men exist.

- (12) a. Keisatu-wa san-nin-no otoko-ga hannin-da to police-TOP three-CL-GEN man-NOM culprit-COP Comp danteisita. concluded
  - 'The police concluded that three men committed the crime.' (*de re, de dicto*) (Takano 2003: 802)
  - b. Keisatu-wa san-nin-no otoko-<u>o</u> hannin-da to police-TOP three-CL-GEN man-ACC culprit-COP Comp danteisita. concluded

'The police concluded that three men committed the crime.' (de re, \*de dicto) (Takano 2003: 802)

Takano (2003) argues that the unavailability of the *de dicto* reading in (12b) supports the Major Object analysis since it suggests that the AS is not an element in the embedded clause. That is, if an AS could be base-generated in the embedded clause and remain there as in (13a), it could be interpreted inside the embedded clause and interpreted as *de dicto*. Even if the AS moves into the matrix clause as in (13b), it could be interpreted inside the embedded clause at LF if it undergoes reconstruction to its trace position.<sup>3</sup>

<sup>&</sup>lt;sup>3</sup> It is not necessary that absence of reconstruction effects is due to absence of movement. In the sentence in (i), no reconstruction is available for the raising subject, which suggests that reconstruction is sometimes disallowed for some reason other than lack of movement.

<sup>(</sup>i) Everyone seems not to be there yet. (every > not, \*not > every) (Chomsky 1995: 327)

- (13) a. The police concluded [[three men] $_i$  are culprits]
  - b. The police concluded [three men] $_i$  [  $t_i$  are culprits]

Thus, the unavailability of the *de dicto* reading indicates that an AS should have never been in the embedded clause, which is incompatible with the Raising-to-Object/ECM analyses.

If, on the other hand, an AS is base-generated in the matrix clause and a pro occupies the embedded subject position as in (14), the unavailability of the *de dicto* reading can be explained straightforwardly: Since there has been no chance for the AS to be in the embedded clause, it must be interpreted in the matrix clause, which results in the obligatory *de re* reading.

(14) The police concluded [three men] $_i$  [ pro $_i$  are culprits].

Thus, the unavailability of the *de dicto* reading in (12b) supports the hypothesis that the AS is base-generated in the matrix clause.

Note, however, that in Takano's (2003) example, the matrix predicate is the verb *danteisuru* "conclude". A new observation in this paper is that a *de dicto* reading, as well as a *de re* reading, is available for some speakers when the matrix verb is changed to a predicate such as *omou* "think". For these speakers, the sentence in (16a) can be true under the scenario (15), although the sentence in (16b) cannot be true under the same scenario.

- (15) *Scenario*: One day John went to a pasture. There were only cows in the pasture then. John could not distinguish cows from horses, and he thought, in the mistaken belief, that the animals in the pasture were horses. Then, he had an idea that three of the animals were female.
- (16) a. John-wa san-too-no uma-o mesu-da to <u>omotta</u>. John-TOP three-CL-GEN horse-ACC female-COP Comp thought 'John thought that three horses were female.' (*de re*, ?*de dicto*)
  - b. John-wa san-too-no uma-o mesu-da to John-TOP three-CL-GEN horse-ACC female-COP Comp danteisita.

concluded

'John concluded that three horses were female.' (de re, \*de dicto)

Although the unavailability of a *de dicto* reading in (16b) supports the Major Object analysis, the availability of the reading in (16a) is problematic

Note, however, that a *de dicto* reading of an AS is available for some English speakers in English ECM sentences like (18), and it is unclear why the *de dicto* reading of an AS is unavailable in Japanese ASCs if an AS is base-generated in the embedded clause as in English ECM sentences. The unavailability can be easily explained given that an AS in Japanese ASCs is base-generated in the matrix clause.

for the analysis. That is, the availability of the *de dicto* reading suggests that the AS in (16a) must be in the embedded clause at a certain point in the derivation, which is incompatible with the Major Object analysis according to which an AS is always base-generated in the matrix clause.

The difference between (16a) and (16b) in the availability of the *de dicto* reading can be explained with the present proposal. Given the proposal, the AS is base-generated in the embedded clause with a "think"-type predicate, as illustrated in (17a), while it is base-generated in the matrix clause with a "conclude"-type predicate, as in (17b).

- (17) a. John thought [ $_{CP}$  three horses are female].
  - b. John conclude [three horses] $_i$  [CP pro $_i$  are female]

In the former case, since the AS has been in the embedded clause, it can be interpreted in the embedded clause, and a *de dicto* reading is available. In John's belief world, horses exist in the pasture, so the sentence (17a) can be true under the given scenario. In the latter case, on the other hand, since the AS has never been in the embedded clause, it must be interpreted in the matrix clause. Therefore the *de dicto* reading is unavailable. Because no horses exist in the pasture in the actual world under the scenario, the sentence (17b) can never be true (or cannot be judged). Thus, the present proposal makes it possible to explain the difference between (16a) and (16b).

Note that for some speakers, a *de dicto* reading is unavailable even with a "think"-type predicate. The unavailability of the *de dicto* reading with a "think"-type predicate, however, may not be a counterexample for the present hypothesis that an AS is base-generated in the embedded clause with a "think"-type predicate since an availability of the *de dicto* reading for ECMed subject is different among speakers even in English ECM sentences as in (18): Postal (1974) reports that ECMed subjects must be interpreted as *de re*, Stowell (1991) reports that they can be interpreted as *de dicto* as well as *de re*, and Hong and Lasnik (2010) reports that many of their informants reasonably accept a *de dicto* reading in the sentence (18), but some speakers do not accept the reading.

(18) I believe someone to have insulted Arthur. (*de re*, ?*de dicto*) (Hong and Lasnik 2010: 279)

Therefore, the availability of the *de dicto* reading in (16a) is parallel with the one in English ECM sentences. <sup>4</sup>

<sup>&</sup>lt;sup>4</sup> One possible analysis to explain the difference among speakers is that assuming that a DP is interpreted at its Case-checking position (Boeckx 2001: 518), Accusative Case of an AS can be checked within the embedded clause for some speakers, but it must be checked at *v*P-Spec in the matrix clause for other speakers.

In this section, I showed that whether ASs can be interpreted as *de dicto* or not varies depending on the predicate that takes the embedded clause; an AS can be interpreted as *de dicto* with a "think"-type predicate, while it cannot be with a "conclude"-type predicate. This difference can be explained given the present proposal that a base-generated position of ASs differs between the two types of predicates, as shown in (5).<sup>5</sup>

## 4 Position of Embedded Adverbs

The last evidence for identifying the base-generated position of an AS is the word order between an AS and an adverb in the embedded clause. Hiraiwa (2001) observes that an AS can appear after an embedded adverb, as in (19).

(19) John-ga mada Mary-o kodomo-da to omotta.

John-NOM still Mary-ACC child-COP Comp thought

'John thought that Mary was still a child.' (Hiraiwa 2001: 72)

Assuming that an adverb like *mada* "still" cannot undergo scrambling across a clause boundary (Saito 1985), the acceptable sentence in (19) suggests that the AS *Mary* in (19) must be in the embedded clause, which is incompatible with the hypothesis that an AS is base-generated in the matrix clause as assumed in the Major Object analysis.

 Mary-wa san-nin-no gakusei-o subete-no sensei-ni syookaisareru bekida to Mary-TOP three-CL-GEN student-ACC all-GEN teacher-DAT be.introduced should that omotteiru.

think

'Mary thinks that three students should be introduced to every teacher.' (three > every, \*every > three) (Takano 2003: 807)

Since the matrix predicate is *omou* "think" in example (i), one may think that the unavailability of the narrow scope reading of the AS would be problematic for my analysis. Note, however, that the obligatory wide scope reading can be explained given the Major Subject analysis proposed by Yoon (2007). As pointed out by Yoon (2007), Major Subjects must take scope over another element in the same clause.

(ii) San-nin-no gakusei-ga ronbun-ga subete-no sensei-ni syokaisareru-bekida.
 3-CL-GEN student-NOM article-NOM every-GEN teacher-DAT be.introduced-shoud
 'As for the three students, their papers should be introduced to every teacher.'
 (three > every, \*every > three)

Assuming that an AS is base-generated in the embedded clause as a Major Subject when the clause is selected by a "think"-type predicate, it is possible to explain the unavailability of the narrow scope reading with regard to an embedded element and the availability of the *de dicto* reading in (16a).

<sup>&</sup>lt;sup>5</sup> Another property of ASs relevant to scope is that an AS obligatorily takes scope over another element in the embedded clause.

Note, on the other hand, that Tanaka (2002) observes that an AS cannot follow an embedded adverb, as in (20)

(20) \* John-ga mada Mary-o kodomo-da to danteisita.

John-NOM still Mary-ACC child-COP Comp concluded

'John thought that Mary was still a child.' (Tanaka 2002: 647)

The judgement given in Hiraiwa (2001) and the one given in Tanaka (2002) appear to be conflicting on first glance. Notice, however, that the matrix predicates in the two examples are different; one is *omou* "think" and the other is *danteisuru* "conclude". The acceptability difference between (19) and (20) can be explained straightforwardly given the present proposal. Under the poposed hypothesis, an AS is base-generated in the embedded clause with a "think"-type predicate whereas it is base-generated in the matrix clause with a "conclude"-type predicate.

- (21) a. John thought [still Mary is a child].
  - b. John concluded Mary<sub>i</sub> [still pro<sub>i</sub> is a child].

As illustrated in (21), the AS can appear after an embedded adverb in the former case, while it must precede an embedded adverb in the latter case. Thus the seemingly incompatible pair of data reported in the literature can be reconciled given the present proposal.

#### 5 Conclusion

In this paper, I showed that ASs in ASCs with a "think"-type predicate behave differently from ones with a "conclude"-type predicate in (i) CP-fronting, (ii) a *de dicto* reading and (iii) the word order between an AS and an embedded adverb. These differences can be explained given the present proposal that an AS is base-generated in the embedded clause when the clause is selected by a "think"-type predicate, whereas it is base-generated in the matrix clause when the clause is selected by a "conclude"-type predicate, as illustrated in (22).

(22) a. John [vP v [VP thought [CP Maryi-ACC is a genius]]
b. John [vP Maryi-ACC v [VP conclude [CP proi is a genius]]

Although the proposed analysis makes it possible to explain the different properties of ASs depending on the two types of predicates, another research question arises: what is the crucial factor that distinguishes the two types of predicates? Without identifying the factor, it is unclear how children can learn the two different types of predicates. Further research is needed to address the question.

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