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## 1 Introduction

This study will concern the (non-)finiteness of the complement in Japanese subject raising to object (JSRO) constructions (1b).

- (1) a. Anna-wa [Mary-ga sagishi da to] shinjiteiru.  
 Anna-nom Mary-nom swindler is that believes  
 'Anna believes that Mary is a swindler.'  
 b. Anna-wa Mary-o[ sagishi da to] shinjiteiru.  
 -acc  
 'Anna believes Mary to be a swindler.'

Kuno (1976) proposes an SRO analysis of the constructions. Expressed in the Minimalist framework (Chomsky 1995 and references therein), under which this study is conducted, *Mary-o*, the  $\theta$ -subject of the embedded predicate as seen in (1a), is moved to the Spec of Agr<sub>O</sub> in the matrix clause for accusative Case checking. See Sakai 1994, 1996, 1998 and Kawai 1998 for supporting arguments for the essence of Kuno's SRO analysis. See also Postal 1974 and Lasnik and Saito 1991 for the English SRO analysis. The correctness of the JSRO analysis will be assumed throughout this paper.

In addition, Kuno (1976) presents an argument for (2).

- (2) JSRO complements are finite.

While (2) is generally taken as standard by subsequent works (Kitagawa 1986 and Ohta 1997, for example), this study will argue against it by closely reexamining Kuno's original data.

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Saito (1985) and subsequent works (Tada and Saito 1991, Murasugi and Saito 1994, Saito 1994, Sakai 1994, 1996, among others) have shown (5).

- (5) Long distance scrambling to the post-subject position is possible from a non-finite clause, as in (6a), but not from a finite clause, as in (6b).
- (6) a. Takashi-ga Boston<sub>1</sub>-e Mayumi-ni t<sub>1</sub> iku-yooni (-to) meireishita.  
 Takashi-nom Boston-to Mayumi-dat go-so that quote order-past  
 'Takashi ordered Mayumi to go to Boston.'
- b. ?\*Takashi-ga Boston<sub>1</sub>-e Mayumi-ni t<sub>1</sub> itta-to hookoku shita.  
 Takashi-nom Boston-to Mayumi-dat go-past quote report do-past  
 'Takashi reported to Mayumi that he went to Boston.' (Data from Sakai 1996)

Assuming the correctness of (5), (6) indicates the non-finiteness of the JSRO complements.<sup>4</sup>

In short, there are both conceptual and empirical motivations for the non-finiteness of JSRO complements. However, this position cannot be taken seriously without a good counter-account of Kuno's (1976) evidence for (2) -- the finiteness of the JSRO complements. Without a satisfactory answer to Kuno's argument, we will be left with two contradictory sets of evidence. For this reason, the evidence that Kuno presents for (2) deserves a close examination.

### 3 Kuno (1976): Finiteness of JSRO Complements

We now examine Kuno's (1976) arguments for (2), concluding that the evidence he offers involves left-dislocation with semi-direct quotation (the terms to be clarified later), not SRO.

Kuno states that sentence-final particles and other modal auxiliaries that cannot appear as infinitives may appear in JSRO complements: namely, sentence-final particles (7) and (8), future tensed predicates (9), and various modals (10). JSRO, if involved, must be from a finite clause.

- (7) Japanese sentence-final particles, such as *yo/zo*:  
 Yamada-wa Tanaka<sub>1</sub>-o baka da zo/naa to omotta.  
           -top    -acc    fool is I tell you/I exclaim quote think-past  
 'Yamada thought of Tanaka, "he is stupid, I tell you/I exclaim".'
- (8) Question marker *ka* (12)  
 Yamada-wa Tanaka-o baka ka to omotta.  
 Yamada-top Tanaka-acc stupid Q quote think-past  
 'Yamada thought, "How stupid Tanaka is?!".<sup>5</sup>

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<sup>4</sup>Sakai (1996) simply notes Kuno's argument for the finiteness of JSRO complements, without any further elaboration.

<sup>5</sup>The gloss in (8) is my own. Kuno's original is 'Yamada wondered if Tanaka was a fool.'

- (9) "Future tense" *daroo*, more accurately called "presumptive auxiliary."  
 Yamada-wa Tanaka-o hannin daroo to suitei shita.  
 Yamada-top Tanaka-acc culprit will-be guess did  
 'Yamada guessed that Tanaka would be the culprit.'
- (10) Modals "that represent the judgement of the referent of the subject of the main clause."  
 Yamada-wa Tanaka-o baka-ni chigainai/ ka-mo shirenai/de-arui hazu ga nai to omotta.  
 Yamada-top Tanaka-acc fool-dat must-be/-be may/-be cannot quote think  
 'Yamada thought Tanaka must/may/couldn't be a fool.'

Kuno's demonstration would be decisive, if the constructions in (7)-(10) were indeed parallel to the type of JSRO constructions in question. However, there are reasons to doubt the relevance of these data.<sup>7</sup>

Observe first that the majority of the examples above use *omou* as the matrix predicate. Since Kuno's claim is about the entire JSRO construction, the sentences in (7)-(10) should be grammatical with other b-type predicates, such as *shinjiru*, 'believe', *utagau* 'suspect', *shoomei suru* 'prove', *suitei-suru* 'infer/guess', etc., insofar as selectional restrictions and other interfering factors are properly controlled. Across the board grammaticality parallel to (7)-(10) does not obtain, however.

- (11) Sentence-final declarative particles are incompatible with the other b-type predicates  
 Yamada-wa Tanaka-o baka da zo/naa to \*shinjita/\*utagatta/\*shoomei/\*suitei shita .  
 Yamada-top Tanaka-acc stupid is quote believed/doubted/proved/guessed  
 'Yamada believed/doubted/proved/guessed that Tanaka is stupid, I tell you.'
- (12) Question marker *-ka* is incompatible with b-type complements, except for *utagau* with a quotative reading:  
 Yamada-wa Tanaka-o baka ka to ?\*shinjita/utagatta/?\*shoomei shita/?\*suitei shita  
 Yamada-top Tanaka-acc stupid Q quote believed/doubted/proved/guessed  
 'Yamada believed/doubted/proved "How stupid Tanaka is?!", or
- (13) With Presumptive *daroo*, only *suitei suru* is good, with a quotative reading:  
 Yamada-wa Tanaka-o hannin daroo to ?\*shinjita/\*?utagatta/\*?shoomei shita/suitei shita  
 Yamada-top Tanaka-acc culprit will-be believe/doubted/proved/guessed  
 'Yamada believed/doubted/proved/guessed that Tanaka would be the culprit.'

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<sup>6</sup>To be more precise, *daroo* is not a straightforward future tense, but an "auxiliary indicating the speaker's conjecture" (Makino and Tsutsui 1986), which Bloch (1946) calls Presumptive. *Daroo* takes a finite complement, and, thus, JSRO takes place from a finite clause, seemingly confirming Kuno's point.

<sup>7</sup>The sentence final particles *zo/yo* are similar to English tag-question; they normally appear only in root-clauses. Their presence in the embedded clause in (7) strongly suggests that the sentence does not involve an ordinary kind of subordination .

(14) The embedded predicates in (11) are good with a quotative reading:

- a. Yamada-wa Tanaka-o baka-ni chigainai to ??shinjita/?\*utagatta/shoomei shita/?\*suitei shita  
Yamada-top Tanaka-acc fool-dat must-be quote believe/doubt/proved/guessed  
'Yamada believed/suspected/proved/guessed that Tanaka must be a fool.'
- b. Yamada wa Tanaka o baka ka-mo shirenai to ?shinjita/?utagatta/\*shoomei shita/suitei shita  
Yamada-top Tanaka-acc fool may-be quote believe/suspect/proved/guessed  
'Yamada believed/suspected/proved/guessed that Tanaka may be a fool.'
- c. Yamada wa Tanaka o baka de-aruru hazu ga nai to shinjita/\*utagatta/shoomei shita/\*suitei ...  
Yamada-top Tanaka-acc fool-be cannot quote believe/suspect/proved/guessed  
'Yamada believed/suspected/proved/guessed that Tanaka couldn't be a fool.'

Note that all the felicitous instances in (11)-(14) involve "quotative reading" of the embedded clauses. For example, the embedded clause in (13) is expressing the act of guessing, rather than its content. Likewise, in (12) the embedded clause itself is the act of suspecting. *Omou* 'to think' is semantically less specific than the predicates in (11)-(14), and, thus compatible with the embedded clause-types in (7)-(10); this explains the grammaticality of Kuno's original data. This markedly contrasts with standard JSRO complements, as in (15); the embedded clauses in (15) express only the content of the action denoted by the verb, not the action itself.

- (15) a. John-wa Mary-o baka da to shinjite iru/suitei shita.  
John-top Mary-acc stupid quote believing-is /guessed  
'John believes/guessed Mary to be stupid.'
- b. Tanaka-wa Yamada-o baka da to utagawanakatta. (Kuno 1973)  
Tanaka-top Yamada-acc stupid is quote doubt-not-past  
'Tanaka did not suspect that Yamada was stupid.' cf. (12)

To sum up, while the judgement is subtle in some cases, the embedded predicates in (7)-(10) are fine with b-type predicates other than *omou* only when the embedded clause illustrates the action denoted by them, that is, only when the embedded clause is a (kind of) quotation spelling out the manner of the action of the matrix predicate.

In Japanese, this sort of adverbial quotation is frequently used, and it will be referred to as "semi-direct" quotation, since it is not literal quotation.

- (16) a. Sensei-ni ike-ike-to iwarete, kimashita.  
Teacher-by go-go-quote say-passive-gerund, come-past  
'Urged by the teacher (*lit. being told by the teacher "go"*), I came here.'
- b. Moo-takusan da to itte, detekimashita.  
already enough is quote say-gerund, came out.  
'I came out, saying "enough already."'
- c. Boku-wa Mary-ni [sore-wa ir-anai]-to kotowarareta.  
I-top Mary-dat [that-top need-not]-quote refused.  
'Mary refused my offer by saying "I don't need that."'

The quoted items in (16) function as manner adverbs, describing the action denoted by the V (Martin 1975). This is precisely the interpretation of the embedded clauses in (7)-(10)/(11)-(14). Thus, I claim that:

(17) Kuno's original data in (7)-(10) involve "semi-direct quotations."

Given (17), the involvement of JSRO in (7)-(10) is highly unlikely for the following reason. An interesting property of semi-directly quoted items is that they do not behave as if they are full-fledged, compositional phrasal projections. NPs within semi-direct quotation do not respect the binding conditions from without, as in (18), and long-distance scrambling (arguably A'-movement) is not possible from within, as in (19):

- (18) John<sub>i</sub>-wa Mary-ni [John<sub>i</sub>-te hontoo-ni baka-ne]-to iwareta.  
 John-top Mary-dat John-top truly stupid-prt quote say-passive-past  
 'John was told by Mary, "John is really stupid."  
 (19) a. \*Kuruma<sub>i</sub>-de John-wa Mary-ni [Boston-ni t<sub>i</sub> ike-ike]-to itta.  
 John-top car-with Mary-to Boston-to go-go quote said.  
 'John urged Mary to go to Boston by car.'  
 b. Kuruma-de, John-wa [Mary-ga Boston-ni t<sub>i</sub> itta]-to shinjite iru.  
 car-with John-top Mary-nom Boston-to went quote believing-is.  
 'John believes that Mary went to Boston by car.'

If so, the accusative NP in (7)-(10)/(11)-(14) cannot be A-moved from a semi-directly quoted clause; hence they are not JSRO constructions.

We now investigate the source of the accusative NP in Kuno's original examples. It has been observed that JSRO resembles the *-no koto-o* construction (20), at least superficially. (See Kuno 1976, Saito 1985, Kitagawa 1986, Ohta 1997):

- (20) a. Taroo-wa Hanako-no-koto-o kiree da to omotta.  
 Taroo-top Hanako-acc-no-koto-acc pretty is quote think-past  
 'Taroo thought that Hanako is pretty.'  
 b.\* Taroo-wa Hanako-no-koto-ga kiree da to omotta.  
 Taroo-top Hanako-acc-no-koto-nom pretty is quote think-past  
 'Taroo thought that Hanako is pretty.'

Given that it cannot be nominative (20b), Kuno concludes that NP-*no-koto-o* is not a derived object, but a base-generated matrix object, perhaps controlling a variable in the embedded clause. Further, *-no koto* can be dropped under certain conditions. Kitagawa (1986) draws a correlation between the constructions in (20) and apparent counter-examples to his analysis (21).

- (21) Keisatsu-wa Anna-o [ [ Joo-no kyoo hansha datta ] to] dantei shita.  
 Police-top Anna-acc Joe-poss accomplice was quote conclude did  
 'The police concluded that Anna was Joe's accomplice.'

Earlier, we saw that JSRO from a [+past] complement is blocked, as in (3). Yet, (21) is quite good under, and only under, an emphatic stress on the object with an appropriate intonation contour. Kitagawa suggests that cases like (21) also involve left-dislocation structure, similar to the *-no koto-o* construction. He shows that just as in the *no-koto-o* construction (22a), these sentences, as in (21), allow the embedded subject to be an overt pronoun coreferential to the matrix object (22b). Resumptive pronouns of this type are not allowed in the (real) JSRO construction of our interest-- i.e. without a specific stress on the matrix object, as in (22c):

- (22) a. Keisatsu-wa Anna<sub>1</sub>-no koto-o [[kanojo<sub>1</sub>-ga Joo-no kyoo hansha datta]to] dantei shita.  
 Police-top Anna-acc she-nom Joe-poss accomplice was quote conclude did  
 'The police concluded that Anna was Joe's accomplice.'  
 b. Keisatsu-wa Anna<sub>1</sub>-o [ [yappari kanojo<sub>1</sub>-ga Joo-no kyoo hansha datta] to] dantei shita.  
 Police-top Anna-acc as expected she-nom Joe-poss accomplice was quote conclude did  
 'The police concluded that, as they thought, Anna was Joe's accomplice.'  
 c.\*Anna-wa [Joe<sub>1</sub>-o kare<sub>1</sub>-ga sagishi da to] shiranakatta.  
 Anna-top Joe-acc he-nom swindler is quote know-not-past  
 'Anna didn't know that Joe was a swindler.'

We will therefore conclude, following Kuno (1976), that Japanese has a left-dislocation *-no koto-o* construction, and, following Kitagawa (1986), that *-no koto* can be dropped, with an appropriate stress/pause before *-o*.

If Kuno's original data in fact involve left-dislocation with *-no koto* dropped, then the *-no koto-o* construction should allow the embedded predicates in Kuno's (1976) data in (7)-(10). This prediction is borne out.

- (23) Joo-wa Anna-no-koto-o baka da zo/naa/ka to omotta.  
 Joe-top Anna-acc stupid is quote particles think-past  
 'Joe thought "Anna is stupid, I tell you/Tanaka's really stupid/Isn't he stupid.'  
 (24) Joo-wa Ana-no-koto-o hannin daroo to suitei shita.  
 Joe-top Anna-acc culprit will-be guess did  
 'Joe guessed/inferred that Anna would be the culprit.'  
 (25) Joo-wa Anna-no-koto-o baka-ni chigainai/ka-mo shirenai/de-aruru hazu ga nai to omotta.  
 Joe-top Anna-gen-koto-acc fool must-be/may-be/couldn't be quote think  
 'Joe thought Anna must be/may be/couldn't possibly be a fool.'

In other words, (7)-(10), Kuno's crucial data, are left-dislocation sentences -- with the accusative NP base generated in situ, and with semi-direct quotation in the embedded clause -- and thus have no bearing on JSRO constructions.

We have seen that the evidence that Kuno presents does not illustrate the finiteness of the embedded clauses for JSRO complements.<sup>8</sup> In the absence of effective arguments against it, we now favor the non-finiteness of JSRO complements.

### 3 Conclusion

This study has thus far presented a set of facts that argue against (2). Below, we will briefly discuss the implications of this study.

The result of this study indirectly supports the small-clause analysis of JSRO (26) by eliminating the most prominent counter-argument to the non-finiteness of JSRO complements.<sup>9</sup>

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<sup>8</sup>*-To* is generally assumed to be a complementizer in Japanese (Kuno 1973, Saito 1985). The alleged presence of an overt complementizer in JSRO complements demands an extra-complication in the theory (Ohta 1997, for example, proposes incorporation of C into the matrix verb), and is thus undesirable. Observe, further, that *-to* can introduce an onomatopoeic adverb or an NP. In these cases, it is clearly not a complementizer:

- (i) a. Ahaha to warat-ta.  
ha-ha-ha quote laugh-past  
'He laughed loudly.'
- b. Boku-wa Tim-to iimasu.  
I-top Tim-quote say.  
'My name is Tim.'

In short, the presence of *-to* does not guarantee the presence of Comp. I will treat *-to* in JSRO constructions not as a complementizer, but as quotative particle as in (i), something similar to the case particle *-ni* in Japanese. The idea is not novel; the non-complementizer status of *-to* has been entertained by other researchers, most notably Fukui (1986), who treats *-to* as postposition, given the following criteria:

- (ii) a. Japanese has an independent postposition *-to* 'with': John to Mary 'John and Mary.'
- b. *-To* can be immediately followed by the topic marker *-wa*, so it is a noun or postposition; it cannot be followed by nominative *-ga* and accusative *-o*, so it is not a noun.

To determine whether it is a postposition or a phrase-particle require a discussion beyond the scope of this presentation. (iia) does not seem very convincing, since natural language frequently exhibits surface ambiguity. (iib) does not distinguish Fukui's position and my position, since the case particle *-ni* can be immediately followed by *-wa*, but not by *-ga* or *-o*.

<sup>9</sup>The result of this study does not distinguish two kinds of non-finite clauses, viz., small clauses and infinitival clauses. Kawai 1998 argues for the former, since only the former can derive an entire cluster of properties of JSRO complements.

- (26) JSRO complements are small clauses (T-less, Aspect-less projections), under the assumption that Japanese non-finite clauses and the corresponding non-past finite counterparts are phonetically ambiguous (Kawai 1998).

This analysis can derive a cluster of properties of JSRO constructions which could not be captured under a single account in the past.

First, with a small clause complement, the lack of the tensed-S effect is straightforwardly expected in (27a); a JSRO complement, being a small clause, lacks a nominative-licensing T; thus JSRO is successful. JSRO does not apply to an embedded subject in a [+past] complement, since the complement includes a nominative-licensing T; JSRO of an NP from such a complement will result in an unchecked nominative feature (27b).

- (27) a. John-wa Mary<sub>1</sub>-o [<sub>SC</sub> t<sub>1</sub> sagishi [<sub>SC</sub> de [<sub>SCO</sub> aru ] ] ] to shinjite-iru.  
 John-top Mary-acc swindler is quote believing-is.  
 'John believes Mary to be a swindler.'
- b.\* John-wa Mary<sub>1</sub>-o [<sub>CP</sub> [ t<sub>1</sub> sagishi datta [<sub>I</sub> T<sub>[+past, +nominative]</sub> ] ] to] shinjite-iru.  
 John-top Mary-acc swindler was quote believing-is.  
 'John believes that Mary was a swindler.'
- c. John-wa [<sub>CP</sub> [ Mary-ga sagishi da [<sub>I</sub> T<sub>[+past, +nominative]</sub> ] ] to] shinjite-iru.  
 John-top Mary-acc swindler was quote believing-is.  
 'John believes that Mary was a swindler.'

The contrast in (27a/b) can be derived without any specific reference to [±past]-T in the embedded clause. Further, we can maintain the Minimalist view of economy-based movement, that is, X moves only if it must (see Ohta 1997 for relevant discussion). Under the proposed analysis, the optionality observed between (27a/c) is only apparent; JSRO is obligatory out of a small clause complement (27a), whereas it is not allowed out of a finite complement (27c).

Secondly, it is known that JSRO complements allow only adjective/copula (A/C) predicates (Kuno 1976, Sakai 1996, 1998, Kawai 1998); a [+stative] requirement on JSRO complements (as in Ohta 1997) is not sufficient, as in (28). This markedly contrast with English, as shown in the grammaticality of the gloss of (28).

- (28) a. \* Kanojo-wa sono otoko-o Storrs-ni sun-de-iru to shinjite iru.  
 She-top that man-acc Storrs-loc live-ing-is quote believing is  
 'She believes the man to live in Storrs.'
- b. \* Kanojo-wa sono otoko-o uchi-ni kaer-anai to shinjite iru.<sup>10</sup>  
 She-top that man-acc home-to go back-not quote believing is  
 'She believes the man does not go home.'

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<sup>10</sup>Jacobsen (1995) demonstrates that Japanese negated [-stative] predicates behave as [+stative].

Note that the A/C predicates are the precisely the class of predicates allowed in small-clause complements of b-type predicates.<sup>11</sup>

Further, this analysis can derive yet another restriction on JSRO complements, one which has not been noted to the best of my knowledge. Namely, only one-place A/C predicates are allowed (Kawai 1998):

- (29) \* John-wa Mary-o robustaa-ga tabe-tai to shinjite-iru.  
John-top Mary-acc lobster-nom eat-desire quote believeing-is  
'John believes Mary to be in the mood for lobster.'

With Koizumi's (1994) treatment of nominative objects in Japanese, the small clause analysis of JSRO complements predicts this. Koizumi (1994) argues that a nominative object in Japanese checks its Case-feature against T in the Spec of T. If so, nominative objects cannot be hosted by a small clause (T-less projection) in Japanese.

The analysis presented here has promise since, as we saw immediately above, it derives a cluster of properties of JSRO complements. Given the results of this study, namely, that Kuno's (1976) arguments for (2) shown to be incorrect, the small clause analysis of JSRO complements can now be seriously pursued. Naturally, this analysis opens up a number of further questions. For example, the nature of a small-clause projection must be investigated. What is the relevant head for this projection? A question about complementation of raising predicates must also be examined. Why do Japanese b-type predicates take a small clause rather than an infinitive as in English? Related to this, we must also investigate cross-linguistic variation in the choice of complements in raising to object constructions, following Brecht's (1974) study for English, Russian and Latin, and, more recently, Lasnik's (1998) investigation of this issue.

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<sup>11</sup>This analysis does not derive this fact; I speculate that it can be traced back to a property of the head of small clauses. For example, the null light-verb head is not thematically rich enough to license complex  $\theta$ -roles. Naturally, in our discussion, we are only concerned with complements of b-type predicates. A non-A/C predicate can head a small clause complement of a perception predicate, as in *I heard Mary sing*.

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