

# Finite Small Clauses in Japanese and Their Theoretical Implications

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## Abstract

This paper investigates the internal structure of finite small clauses (FSC). I will propose that a FSC is base-generated at Spec-CP and a null operator is involved to check the formal features of the embedded T and turn a sentence into a predicate.

## 1. Introduction

Japanese has small clauses as shown in (1a).<sup>1</sup> In this example, the small clause subject has its Case feature checked against the matrix verb, resulting in an accusative Case-marking. This is indeed the only way for the small clause subject to check its Case feature. Since there is no finite T in the small clause, as is indicated by the non-inflected form of the predicate, the small clause subject cannot appear in the nominative as in (1b):

- (1) a. John-ga [SC Mary-o [PRED kasikoku]] omotta (koto)  
      -nom       -acc   intelligent considered (fact)  
      “John considered Mary intelligent.”  
      b. \*John-ga [SC Mary-ga [PRED kasikoku]] omotta (koto)  
          -nom       -nom   intelligent considered (fact)

However, it is often said that Japanese allows another type of small clause, in which a small clause predicate shows up in a finite form as in (2a). I will refer to this type of small clause as finite small clause (FSC). That there exists a finite T in the FSC can be made clear by the availability of the nominative Case marking on the embedded subject as in (2b):

- (2) a. John-ga Mary-o kasikoi to omotta (koto)  
      -nom       -acc intelligent C considered (fact)  
      b. John-ga Mary-ga kasikoi to omotta (koto)  
          -nom       -nom intelligent C considered (fact)

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<sup>1</sup> Koto “the fact” is added to the end of some of the Japanese examples to avoid the unnaturalness resulting from the lack topic in a matrix sentence. I ignore *koto* in the translation of those examples.

The string (2b) can be analyzed as a complex sentence that embeds a finite clause, in which the subject *Mary-ga* “M-nom” is moved from the predicate-internal subject position to Spec-TP as is shown in (3):

- (3) John-ga [CP [TP Mary-ga<sub>i</sub> [PRED t<sub>i</sub> kasikoi]] to] omotta (koto)  
       -nom               -nom           intelligent C   considered (fact)  
       “John considered that Mary is intelligent.”

Then, what is the internal structure of FSCs like (2a)? I will answer this question by considering the two questions (4) and (5):

- (4) Where is the FSC subject base-generated?  
     a. At predicate-internal subject position  
     b. At Spec-CP of the embedded clause  
 (5) Where is the FSC subject moved to before Spell-Out?  
     a. Spec-TP of the embedded clause  
     b. Outer Spec-*v*P of the matrix clause  
     c. Spec-CP of the embedded clause

There are two conceivable answers for the former question as in (4a-b) and three answers for the latter as in (5a-c). Therefore, there are logically six combinations. However, the combination of (4b) and (5a) can be precluded in the first place because it requires lowering operation in overt syntax, which runs counter to the extension condition in the sense of Chomsky (1993). The other five possible combinations are displayed in (6a-e).<sup>2</sup> In (6a-c), it is assumed that the FSC subject is base-generated at the predicate-internal subject position.<sup>3</sup> On the other hand, in (6d-e), it is assumed to be base-generated at Spec-CP of the embedded clause. In addition to these, we will consider another possibility illustrated in (6f) that the apparent FSC subject is in fact an argument of the matrix verb, called Major Object, which binds a pro that is base-generated at the predicate-internal subject position.

- (6) a. John-ga<sub>j</sub> [<sub>VP</sub> t<sub>j</sub> [<sub>VP</sub> [<sub>CP</sub> [<sub>TP</sub> Mary-o<sub>i</sub> [<sub>PRED</sub> t<sub>i</sub> kasikoi]] to] omotta]]       (3a × 4a)  
     b. John-ga<sub>j</sub> [<sub>VP</sub> t<sub>j</sub> [<sub>VP</sub> [<sub>CP</sub> Mary-o<sub>i</sub> [<sub>TP</sub> t<sub>i</sub> [<sub>PRED</sub> t<sub>i</sub> kasikoi]] to] omotta]]       (3a × 4b)  
     c. John-ga<sub>j</sub> [<sub>VP</sub> Mary-o<sub>i</sub> [<sub>v'</sub> t<sub>j</sub> [<sub>VP</sub> [<sub>CP</sub> [<sub>TP</sub> t<sub>i</sub> [<sub>PRED</sub> t<sub>i</sub> kasikoi]] to] omotta]]]]       (3a × 4c)  
     d. John-ga<sub>j</sub> [<sub>VP</sub> t<sub>j</sub> [<sub>VP</sub> [<sub>CP</sub> Mary-o [<sub>TP</sub> [<sub>PRED</sub> kasikoi]] to] omotta]]       (3b × 4b)  
     e. John-ga<sub>j</sub> [<sub>VP</sub> Mary-o<sub>i</sub> [<sub>v'</sub> t<sub>j</sub> [<sub>VP</sub> [<sub>CP</sub> t<sub>i</sub> [<sub>TP</sub> [<sub>PRED</sub> kasikoi]] to] omotta]]]]       (3b × 4c)

<sup>2</sup> Each proposal has at least one advocate, except (6d), which I will defend. See Hiraiwa (2001) and Ueda (1988) for (6a), Hiraiwa (2001) and Sakai (1997) for (6b), Massam (1985) for (6c) and (6e), and Hoji (1991) and Oka (1988) for (6f).

<sup>3</sup> I assume that the FSC subject moves through Spec-TP of the embedded clause in (6b) and (6c) to check the EPP feature of T.

f. John-ga [VP Mary-o<sub>i</sub> [CP [TP pro<sub>i</sub> [PRED t<sub>i</sub> kasikoi]] to] omotta] (Major Object)

This paper aims to clarify the internal structure of FSCs within the Minimalist framework developed by Chomsky (2000 ; 2001). This paper is organized in the following manner. In sections 2, I will deny the possibilities (6a-c) on the basis of the fact that a FSC subject, when it appears as a WH-phrase, cannot take embedded scope. In section 3, I will discard the possibility (6d) and (6f), resting on the fact that the predicate plus complementizer part of a FSC cannot be moved to a position higher than the FSC subject. In section 4, I will propose the internal structure FSCs, which involves a null operator. In section 5, I will show four consequences of the proposal: (i) a complex sentence (i.e., a sentence that embeds another sentence) can be a FSC predicate (5.1); (ii) a simplex sentence whose predicate is a transitive verb can be a FSC predicate (5.2); (iii) the proposal paves the way toward eliminating Superraising (5.3); (iv) Hyper-raising may also be dispensed with (5.4). Section 6 concludes the paper, followed by an appendix.

## 2. Against (6a-c)

In this section, I will eliminate the possibilities (6a-c), through examination of FSCs headed by an interrogative complementizer *ka*, instead of a declarative complementizer *to*. Before considering the crucial data, let us see how WH-phrases are licensed in Japanese. The licensing condition can roughly be stated as in (7). Consider the examples in (8) for illustration of (7).

(7) A WH-phrase must be c-commanded by the interrogative complementizer of a clause in which it takes scope at some stage of the derivation.

(8)a. [TP John-ga Mary-ni [CP [TP Bill-ga dare-o nagutta] ka] oshieta ] (koto)  
           -nom     -dat           -nom who-acc hit     Q taught (fact)

“John told Mary who Bill hit.”

b. dare-o<sub>i</sub> [TP John-ga Mary-ni [CP [TP Bill-ga t<sub>i</sub> nagutta] ka] oshieta ] (koto)  
       who-acc     -nom     -dat           -nom hit     Q taught (fact)

“John told Mary who Bill hit.”

c. \*[TP John-ga dare-ni [CP [TP Bill-ga Mary-o nagutta] ka] oshieta] (koto)  
       -nom who-dat           -nom     -acc hit     Q taught (fact)

“John told who that Bill hit Mary.”

d. [TP John-ga dare-ni [CP [TP Bill-ga Mary-o nagutta] ka] oshieta] no  
       -nom who-dat           -nom     -acc hit     Q taught Q

“To whom did John tell that Bill hit Mary?”

The WH-phrase in (8a) is licensed because it is c-commanded by the interrogative complementizer *ka* of the embedded clause, in which it takes scope. In (8b), the WH-phrase is moved out of the c-command

domain of the interrogative complementizer via scrambling. Nevertheless, it can take embedded scope because it was c-commanded by the embedded complementizer before it is scrambled, hence meeting the condition (7). In contrast, (8c) is ungrammatical because the WH-phrase is outside of the c-command domain of the interrogative complementizer of the embedded clause throughout the derivation. However, this example can be rescued as a matrix WH-question by adding an interrogative particle *no* at the sentence-final position as in (8d).

With this background in mind, let us consider cases in which an embedded subject appears as a WH-phrase as in (9) and (10):

(9) a. John to Mary-ga [<sub>CP</sub> [<sub>TP</sub> dare-ga kurasu-de ichiban kashikoi] ka] gironshita (koto)  
       & -nom who-nom class-in most intelligent *Q* discussed

“John and Mary discussed who is most intelligent in the class.”

b. \*John to Mary-ga dare-o kurasu-de ichiban kashikoi ka gironshita  
       & -nom who-acc class-in most intelligent *Q* discussed

“\*John and Mary discussed whom to be most intelligent in the class

c. John to Mary-ga dare-o kurasu-de ichiban kashikoi ka gironshita no  
       & -nom who-acc class-in most intelligent *Q* discussed *Q*

“\*Whom did John and Mary discuss to be most intelligent in the class?”

(10) a. Boku-wa [<sub>CP</sub> [<sub>TP</sub> dare-ga kurasu-de nan banme-ni kashikoi] ka] shiri-tai  
       I-top who-nom class-in what position-in intelligent *Q* know-want

“I want to know who stands where in the class.”

b. \*Boku-wa dare-o kurasu-de nan banme-ni kashikoi ka shiri-tai  
       I-top who-acc class-in what position-in intelligent *Q* know-want

“\*I want to know whom to stand where in the class.”

c. Kimi-wa dare-o kurasu-de nan banme-ni kashikoi ka shiri-tai no  
       You-top who-acc class-in what position-in intelligent *Q* know-want *Q*

“\*Whom do you want to know to stand where in the class.”

In (9a) and (10a), the embedded WH-subject shows up in the nominative and can take embedded scope because it occupies Spec-TP of the embedded clause, being c-commanded by the interrogative complementizer *ka*. However, the minimal pairs of these examples are ungrammatical, where the WH-subject manifests itself in the accusative as a FSC subject as in (9b) and (10b). Considering that the nominative subject can alternate with the accusative one as a FSC subject in examples like (2), the ungrammaticality of (9b) and (10b) is unexpected. There are two possibilities to rule them out. One is simply to say that there is no FSC headed by an interrogative complementizer whatever the reason may be. The other is to say that the FCS subject is base-generated at a position high enough not to be c-commanded by the embedded complementizer throughout the derivation. Notice that (9b) and (10b) can

be rescued as a matrix WH-question by adding an interrogative particle at the sentence-final position as in (9c) and (10c), just like (8c) is rescued as in (8d). This is compatible only with the latter possibility because if the former one were correct, (9c) and (10c) would also be ungrammatical.

Let us now consider which of the six hypotheses in (6) should be adopted to explain the ungrammaticality of (9b) and (10b) by attributing it to the failure to license the WH-subject. We cannot adopt (6a-c), because on these hypotheses, the WH-subject in (9b) and (10b) would be c-commanded by the interrogative complementizer throughout or at some stage of the derivation, and they would be wrongly predicted to be grammatical. On the other hand, if we adopt (6d-f), we can elucidate their ungrammaticality. On these hypotheses, the WH-phrase in question can be analyzed as being outside of the c-command domain of the interrogative complementizer throughout the derivation. More specially, it is base-generated at Spec-CP of the embedded clause under (6d-f) whereas it is base-generated as an internal argument of the matrix verb under (6f).

Consequently, we can discard the possibilities (6a-c) based on the fact that a FSC subject, when it appears as a WH-phrase, cannot take embedded scope, assuming that the internal structure of FSCs does not differ when they are headed by a different complementizer.

### 3. Against (6d) and (6f)

We are now left with three possibilities (6d-f) for the correct representation of the string (2a), which is repeated in (11a), with the embedded predicate plus complementizer written in boldface. Among the remaining hypotheses, I will argue for the one that can explain why it is next to impossible to move the boldface part of (11a) as in (11b).

- (11) a. John-ga Mary-o **kasikoi to omotta** (koto)  
           -nom -acc intelligent C considered (fact)  
           “John considered Mary to be intelligent.”  
       b. ?\***kasikoi to** John-ga Mary-o omotta (koto)  
           intelligent C -nom -acc considered (fact)

Let us first consider whether we can deal with the unacceptability of (11b) if we choose (6f) as the structure of (11a). In this case, (11b) will be analyzed as in (12):

- (12) [CP [TP PRO<sub>j</sub> [PRED t<sub>j</sub> **kasikoi**] to]<sub>k</sub> John-ga<sub>i</sub> [VP t<sub>i</sub> [VP Mary-o<sub>j</sub> t<sub>k</sub> omotta]] (koto)

(12) is derived from (6f) by moving the embedded CP to the sentence-initial position via scrambling. As far as I can see, there is no grammatical violation involved here.<sup>4</sup> That we cannot predict the degraded status of (11b) based on (6f) means that it cannot be the correct structure for the string (11a).

<sup>4</sup> One may claim that the unacceptability of (11b) can be explained based on (12), in combination with the non-trivial

There still remain two hypotheses (6d-f). (11b) can be analyzed either as in (13a) or as in (13b), depending on which hypothesis we adopt for the structural representation of (11a).

- (13) a. [<sub>CP</sub> t<sub>j</sub> [<sub>TP</sub> [<sub>PRED</sub> kasikoi]] to]<sub>k</sub> John-ga<sub>i</sub> [<sub>VP</sub> Mary-o<sub>j</sub> [<sub>v'</sub> t<sub>i</sub> [<sub>VP</sub> t<sub>k</sub> omotta]]] (koto)  
 b. [<sub>CP</sub> t<sub>j</sub> [<sub>TP</sub> [<sub>PRED</sub> kasikoi]] to]<sub>i</sub> John-ga Mary-o<sub>j</sub> t<sub>i</sub> omotta (koto)

(13a) is derived from (6d) by moving the FSC sentence-initially. In this case, the FSC has become a remnant because the FSC subject *Mary-o* "M-acc" has raised into outer Spec-*vP* in the matrix. On the other hand, (13b) is derived from (6e), by first moving the FSC subject out of the embedded CP via string vacuous scrambling so as to make it a remnant and then moving the remnant to the left of the matrix subject.

Which analysis correctly captures the grammatical status of (11b)? One may think that since the fronted CP contains an unbound trace at Spec-CP in both cases, either analysis can correctly account for the unacceptability of (11b) by invoking the Proper Binding Condition (PBC), which requires that traces must be bound at overt syntax. This is not a welcome conclusion, however. If both analyses work, we cannot distinguish between (6d) and (6e).

Notice that the unbound trace in (13a) and the one in (13b) are of the different type: it is an A-trace in the former whereas it is a scrambling-trace in the latter. This difference is crucial because there is a distinction between A-traces and scrambling-traces with respect to the immunity to the PBC. As for A-traces, it suffices for the present discussion to say that they are immune to the PBC, as is indicated by the grammaticality of the examples in (14). In each case, the fronted constituent contains an unbound trace of the argument that has undergone A-movement, with its grammaticality unaffected.

- (14) a. [<sub>VP</sub> t<sub>i</sub> hit Mary]<sub>j</sub> John<sub>i</sub> did t<sub>j</sub>  
 b. [<sub>VP</sub> criticized t<sub>i</sub> by his boss]<sub>j</sub> John<sub>i</sub> has never been t<sub>j</sub>  
 c. [<sub>AP</sub> how likely t<sub>i</sub> to win the game]<sub>j</sub> is John<sub>i</sub> t<sub>j</sub>

On the other hand, it has been well known since Saito (1985) that traces created by scrambling must obey the PBC. Consider the examples in (15):

- (15) a. John-ga [<sub>CP</sub> [<sub>TP</sub> Mary-ga sono hon-o yonda] to] itta  
           -nom                  -nom the book-acc read C said  
           'John said that Mary read the book.'  
 b. sono hon-o<sub>i</sub> [<sub>CP</sub> [<sub>TP</sub> Mary-ga t<sub>i</sub> yonda] to] itta  
           the book-acc          -nom                  -nom read C said

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assumption that pro must be bound by its antecedent at overt syntax. However, it does not go through because it will predict that (16b) would be ungrammatical, contrary to fact. It is noteworthy that pro can be interpreted as a bound pronoun in Japanese even when it is not overtly c-commanded by its antecedent. See Hoji (1985)

- c. [<sub>CP</sub> [<sub>TP</sub> Mary-ga sono hon-o yonda] to]<sub>j</sub> John-ga t<sub>j</sub> itta  
           -nom the book-acc read C           -nom said
- d. \* [<sub>CP</sub> [<sub>TP</sub> Mary-ga t<sub>i</sub> yonda] to]<sub>j</sub> sono hon-o<sub>i</sub> John-ga t<sub>j</sub> itta  
           -nom read C the book-acc           -nom said

(15a) is a complex sentence that embeds a finite clause as a complement to the matrix verb. (15b) shows that the embedded object can be dislocated to the sentence-initial position by scrambling whereas (15c) manifests that the embedded clause itself can also be moved thereto. However, as is shown in (15d), it is impossible to apply these two scrambling operations to the basic structure (15a). (15d) is derived by first moving the embedded object to the left of the matrix subject and then moving the embedded clause, which is by now a remnant, to the left of the scrambled object, with the result that the fronted CP contains an unbound trace of the embedded object. Since the scrambling operations involved in (15d) themselves are permissible as is proved in (15b) and (15c), it is reasonable to attribute the ungrammaticality of (15d) to the PBC.<sup>5</sup>

Given the distinction between A-traces and scrambling-traces with respect to the immunity to the PBC, we can distinguish between (13a) and (13b), hence between (6d) and (6e). We can account for the unacceptability of (11b) by resorting to the PBC only when it is analyzed as in (13b), where the unbound trace contained within the fronted constituent is a scrambling-trace. Suppose (11b) can be analyzed as in (13a), where the unbound trace is an A-trace. Then, we will have to have recourse to some unknown principle other than the PBC to treat the degraded status of (11b). The problem with the analysis (13a) can be highlighted given that a FSC indeed can undergo remnant movement in case the unbound trace it contains is an A-trace. Let us examine (16):

- (16) a. Mary-ga<sub>j</sub> John-ni [<sub>CP</sub> t<sub>j</sub> [<sub>TP</sub> [<sub>PPRED</sub> kasikoi]] to] omow-areta (koto)  
           -nom   -by                   intelligent C considered-pass (fact)  
           “\*Mary was considered to be intelligent by John.”
- b. [<sub>CP</sub> t<sub>j</sub> [<sub>TP</sub> [<sub>PPED</sub> kasikoi]] to]<sub>k</sub> Mary-ga<sub>j</sub> John-ni t<sub>k</sub> omow-areta (koto)  
           intelligent C           -nom   -by   considered-pass (fact)

(16a) is the passive counterpart of (6e). The passivization deprives the matrix verb of its ability to check Case, which triggers the FSC subject to undergo A-movement into Spec-TP in the matrix, leaving an A-trace at Spec-CP of the embedded clause. Given that A-traces are immune to the PBC, it should be possible to move the remnant CP to the left of the raised subject. This prediction is borne out as is made

<sup>5</sup> Note in passing that multiple application of scrambling per se is allowable as far as the PBC is respected as shown in (i). The chain-paths can be either nesting or crossing.

- (i) a. [<sub>CP</sub> Taro-ga kyonen Hanako-to kekkonshita to]<sub>j</sub> Mary-ni<sub>i</sub> John-ga t<sub>i</sub> t<sub>j</sub> itta  
           -nom last year           -with married C           -dat   -nom   said  
           “John said to Mary that Taro married Hanako last year.”
- b. Mary-ni<sub>i</sub> [<sub>CP</sub> Taro-ga kyonen Hanako-to kekkonshita to]<sub>j</sub> John-ga t<sub>i</sub> t<sub>j</sub> itta  
           -dat           -nom last year           -with married C           -nom   said

clear by the grammaticality of (16b). Thus, if (13a) were a correct representation of (11b), then it would be as good as (16b), contrary to fact.

We have seen that the string (11b) can be analyzed as in (12), (13a), or (13b), depending on which hypothesis among (6d-f) we adopt for the structure of (11a), and that only (13b) can account for the fact that (11b) sounds bad. Therefore, we can regard the unacceptability of (11b) as crucial evidence in favor of the hypothesis (6e) from which (13b) is derived.

#### 4. Internal structure of FSCs

We have reached the mid-interim conclusion that (6e), repeated in (17), is the most plausible structure for the string (2a).

(17) John-ga [<sub>CP</sub> Mary-o [<sub>TP</sub> [<sub>PRED</sub> kasikoi]] to] omotta (koto)

On this hypothesis, the FSC subject is base-generated at Spec-CP and does not move any further. Only this can explain both why a FSC subject, when it appears as a WH-phrase, cannot take an embedded scope and why the predicate plus complementizer part of a FSC cannot be moved to a position higher than the FSC subject.

This hypothesis raises a number of questions, among which I will address the followings:

- (18) a. How to check the accusative Case feature of a FSC subject.
- b. How to check the EPP, nominative Case and phi-features of the embedded T.
- c. How to interpret FSCs.

I claim that the questions in (18b) and (18c) can be naturally answered if we assume that FSCs involve a null-operator as is schematically shown in (19):

(19) [<sub>TP</sub> Subj<sub>i</sub> [<sub>VP</sub> t<sub>i</sub> [<sub>VP</sub> [<sub>CP</sub> Subj<sub>j</sub> [<sub>TP</sub> Op<sub>k</sub> [<sub>TP</sub> t<sub>k</sub> [<sub>PRED</sub> t<sub>k</sub> ]]]]]]]]]

A null operator is base-generated at the predicate-internal subject position and moves into Spec-TP to check the EPP, nominative Case and phi-features of the embedded T. This answers the question (18b). Furthermore, the null operator adjoins to the TP and turns the semantically saturated sentence into a predicate, which is applied to the FSC subject base-generated at Spec-CP. Thus, the more minute structure of (17) will be the one like (20a) and the semantic representation of the FSC can be expressed as in (20b). This answers the question (18c).



- (20) a. John-ga [CP Mary-o [TP Op<sub>i</sub> [TP t<sub>i</sub> [PRED t<sub>i</sub> kasikoi]]] to] omotta (koto)  
           -nom           -acc                                   intelligent C considered (fact)  
           “John considered Mary to be such that she is intelligent.”  
       b.  $\lambda x$ . [x is intelligent] (m)

The recourse to a null operator is not so ad hoc as it may first seem because Japanese employs null operators fairly freely. A typical case can be seen in the so-called Multiple Subject Construction (MSC). Let us examine the examples in (21) to see how a null operator works in MSC.

- (21) a. [DP Mary-no imooto-ga] kashikoi  
           -gen sister-nom intelligent  
           “Mary’s sister is intelligent.”  
       b. Mary-ga [DP imooto-ga] kashikoi  
           -nom     sister-nom intelligent  
           “Mary is such that her sister is intelligent.”

In (21a) there is one nominative-marked DP, which contains a genitive-marked DP. This sentence is semantically unproblematic because it contains one predicate and one subject. Thus, we can interpret this sentence as asserting that Mary’s sister is pretty. In (21b), on the other hand, there are two nominative-marked DPs. The most natural interpretation of this sentence is not an assertion about the intelligence of Mary’s sister but an assertion about Mary’s having an intelligent sister. In other words, Mary is interpreted as the subject of the predication in this case. Let us consider how to derive this interpretation, putting aside the question of how to check two (or more) nominative Cases in a single sentence.<sup>6</sup> In my view, one of the promising analyses of MSC is to have recourse to a null operator. Thus, (21b) can be analyzed as (22a), in which a null operator appears at some position, say, Possessor position, within the subject DP and moves to a TP adjoined position. As a result, the TP turns into a predicate and we can interpret the entire sentence by applying this derived predicate to the argument *Mary*, whose semantic representation is shown in (22b).

- (22) a. Mary-ga [TP Op<sub>i</sub> [TP [DP t<sub>i</sub> imooto-ga]<sub>j</sub> [PRED t<sub>j</sub> kashikoi]]]  
           -nom                                   sister-nom                   intelligent  
       b.  $\lambda x$ . [x’s sister is intelligent] (m)

Since we have a good reason to exploit a null operator in MSC in Japanese, there is nothing that prevents us from making use of it for the interpretation of FSCs as well. Whatever the exact nature of MSC may turn out to be, it can surely be carried over to the implementation of the interpretation of FSCs.

<sup>6</sup> See Fukui (1986), Kuroda (1988) and Ura (1994) for this issue.

Given that a null operator plays a crucial role in syntax and semantic of FSCs and MSC, it is tempting to establish the following generalization.

(23) If a language allows MSC, then it also allows FSCs.

Let us now to the question (18a). Assuming with Chomsky (1995; 2000) that the locus of the accusative Case feature is  $v$ , I claim that  $v$  and the FSC subject enters into checking relation via the operation called Agree in Chomsky (2000). This kind of “long distance” agreement is of course possible in the framework of Chomsky (2000) because Spec-CP is the edge of a phase and is accessible from the  $v$  in the next phase. This is essentially the same as what happens in case of successive cyclic WH-movement. The only difference is whether  $v$  takes on an EPP feature and serves as a landing site or not. This answers the question (18a).

### 5. A Consequence: Toward eliminating of Superraising<sup>7</sup>

Superraising is the name of the operation by which a DP (or NP) is moved beyond the subject of a subordinate clause into an A-position of the superordinate clause. As is well known, such an operation should not be allowed because it necessarily violates the Relativized Minimality (RM). The English example (24) is a case in point.

(24) \*John<sub>i</sub> seems [<sub>CP</sub> that [<sub>TP</sub> it was told t<sub>i</sub> that Mary is genius]]

This example is violates the RM, because *John* moves from the internal argument position of the embedded verb into Spec-TP in the matrix, skipping the intervening A-position occupied by the pleonastic *it*. However, Ura (1994) points out that Superraising is possible in not a few languages such as Moroccan Arabic, Chukchee, Chichewa and so on. Consider the Moroccan Arabic examples in (25).

- (25) a. Ttshab-li                    [<sub>CP</sub> belli šaf- φ -ha            muhend mmi    fsefru]  
       seemed-3sg-to-1sg            C    saw-3sgm-3sgf Mohand mother in-Sefrou  
       “It seemed to me that Mohand saw my mother in Sefrou.”
- b. Ttshab-et-li                    mmi<sub>i</sub>    [<sub>CP</sub> belli šaf- φ -ha            muhend t<sub>i</sub> fsefru]  
       seemed-3sg-f-to-1sg mother            C    saw-3sgm-3sf Mohand in-Sefrou  
       “\*My mother seemed to me that Mohand saw in Sefrou.”

(Harrel 1962, Wager 1983 cited by Ura 1994: 12)

<sup>7</sup> The present proposal implies that a FSC predicate can be produced as freely as predicates of other operator constructions such as relative clauses. Kuno (2001) pursues this implication and shows that even a complex sentence and simplex sentence whose predicate is a transitive verb can be a FSC predicate. Furthermore, Kuno (2001) discusses the possibility that Hyper-raising can also be dispensed with under the present proposal.

In (25a), the matrix verb takes a CP as its complement, in which the verb *šaf-φ-ha* “saw” shows phi-feature agreement with the subject and the object.<sup>8</sup> In (25b), on the other hand, the matrix verb *ttshab-et-li* “seemed” shows gender agreement with the object of the embedded verb, which is moved to the left of the embedded clause beyond the embedded subject. Ura takes this movement to be Superraising. In an attempt to explain what is the difference between the languages that allows Superraising and those that do not, he establishes the following generalization:

(26) If a language allows MSC, then it also allows Superraising to take place.

He claims that in a language that allows MSC, T can host multiple Specifiers. He also assumes with Chomsky (1995: Ch.3) that elements within the same minimal domain are equidistant from elsewhere. Thus, in (25b), the object can raise into the matrix though the outer Spec-TP of the embedded clause, which nullifies a violation of the RM. Though this is an elegant account, it overlooks an important question: why can the object undergo A-movement from one Case position to another Case position, which violates the Greed of Chomsky (1995: Ch.3) or the Activation condition of Chomsky (2000)?

This problem can be overcome if we reanalyze the embedded clause of (25b) as a FSC as is shown in (27), where *mmi* “mother” is base-generated at Spec-CP of the embedded clause and moves up into the matrix clause, and a null operator is base-generated at the internal augment position of *šaf-φ-ha* “saw” and adjoins to the TP of the embedded clause, turning it into a predicate.

(27) *Ttshab-et-li*            *mmi<sub>j</sub>*    [<sub>CP</sub> *t<sub>j</sub>* *belli* [<sub>TP</sub> *Op<sub>i</sub>* *šaf-φ-ha-3sgf* *muhend t<sub>i</sub>* *fsefru*]]  
*seemed-3sg-f-to-1sg* *mother*            *C*            *saw-3sgm*    *Mohand*    *in-Sefrou*  
 “My mother seemed to me to be such that Mohand saw her in Sefrou.”

This reanalysis is possible because Ura’s generalization (26) and mine (23) share the antecedent clause. Hence, all the examples which Ura claims that involve Superraising can be reanalyzed as involving a FSC structure. Consequently, this reanalysis, to the extent that it is tenable, paves the way toward eliminating Superraising. Considering the problems it raises about the Greed/Activation condition as well as the Relativized Minimality, this move can be regarded as an advantage of the present proposal.

## 6. Conclusion

In this paper, I have clarified the internal structure of FSCs in Japanese by considering the questions of where it is that FSC subjects are base-generated and where it is that they move to before Spell-Out. I have answered that FSC subjects are base-generated at Spec-CP and do not move any further. This mid-interim conclusion gives rise to other questions such as how to check the EPP and other formal features of

<sup>8</sup> I omit discussing the exact phrase structure of this language. Probably, the VSO order results from V-C movement.

the T in a FSC and how to interpret a FSC. I have answered these questions by assuming that FSCs involve a null operator, which checks T's EPP and other formal features and turns the TP into a predicate through adjoining to it ( $\lambda$ -abstraction). As for the adoption of a null operator, it is suggested that there is a motivation in that Japanese allows MSC, the semantics of which is quite difficult to deal with without recourse to a null operator. On the basis of this consideration, I have established the generalization that languages that allow MSC also allow FSCs. It has also been claimed that a FSC subject can enter into checking relation with the  $v$  in the next higher clause via the operation Agree. It also has been shown that Superraising can be eliminated from the theory of grammar by reanalyzing the instances that have been invoking it as involving a FSC structure. This reanalysis can be taken as an advantage of the present proposal because it enables us to dispense with the operations that potentially violate the universal principles, namely, the Relativized Minimality and Greed/Activation condition.

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