

# CONTROLLING JAPANESE EXPERIENCER\*

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## 1. Evidentiality and the Distribution of OC PRO

### 1.1. Introduction

This paper examines the syntax of the subject of a certain class of adjectives in Japanese. Let us start with examples (1a-c), which involve the nominative-object taking adjective *nikurasi-i* ‘hate’:

- (1) a. {watasi/ \*kimi/ \*Hiroshi}-wa Mari-ga nikurasi -i -naa  
I you Hiroshi-Top Mari-Nom hate -Prs-SFP  
‘{I hate/\*You hate/\*Hiroshi hates} Mari.’
- b. Hiroshi<sub>i</sub>-wa [ $\Delta_i$  Mari-ga nikurasi -i -to] {omotta/ kanzita}  
Hiroshi-Top Mari-Nom hate -Prs-C thought felt  
‘Hiroshi<sub>i</sub> {thought/felt} that he<sub>i</sub> hated Mari.’
- c. Hiroshi<sub>i</sub>-wa [ $\Delta_i$  Mari-o nikurasi -i -to] {omotta/ kanzita}  
Hiroshi-Top Mari-Acc hate -Prs-C thought felt

(1a) shows that *nikurasi-i* must take a first person subject when it occurs in a declarative root clause. (1b-c) are examples obtained by embedding *kanasi-i* in a sentential complement. Whereas the object of the adjective cannot be in the accusative case in root clauses, as in *\*watasi-wa Mari-o nikurasi-i-yo* (I-Top Mari-Acc hate-Prs-SFP), embedding of the sentence under verbs such as *omo-u* ‘think’ or *kanziru* ‘feel’ makes this accusative case marking possible, as in (1c). The major goal of this paper is to propose a new analysis of the syntax of hate class adjectives that can capture the connection between the phenomenon illustrated by (1a) and the unusual instance of exceptional case marking found in (1c). It is argued that the

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subject of adjectives of the hate class is obligatorily controlled and that a restriction on the person of their subject follows from an interaction between the nature of Obligatory Control (OC) and the properties of a functional category at the “right periphery”. For the unusual exceptional case marking, it is argued that OC PRO, unlike other null elements, is invisible for the purposes for Minimality.

## 1.2. The Data

### 1.2.1. The Person Restriction

As already seen in (1a), the *hate* class adjectives in Japanese display a restriction on the person of their subject, dubbed by Tenny (2006) the “Person Restriction” (henceforth, PR). The phenomenon is first observed by Kuroda (1965: 142-43, 183f., 1973) and then discussed by Kuno (1973), Inoue (1976), Aoki (1986), Tenny (2006), among others:<sup>1</sup>

- (2) a. {*watasi*/\**kimi*/ \**Atsuko*}-*wa* *kanasi* -*i* -*yo*  
 I you *Atsuko* -Top *sad* -Prs -SFP  
 ‘{I am, \*You are, \**Atsuko* is} *sad*.’
- b. {*watasi*/ *kimi*/ *Atsuko*-*wa* *kawai* -*i* -*yo*  
 I you *Atsuko*-Top *cute* -Prs-SFP  
 ‘{I am, You are, *Atsuko* is} *cute*.’

The native speaker’s intuition is that, roughly put, the truth or falsity of sentences involving *sad* or *hate* is judged on evidence internal to the speaker’s direct experience. I call these adjectives the Subject Experiencer (SubjExp) adjectives. (The term is borrowed from Pesetsky 1995.) The SubExp class includes *kanasi-i* ‘sad’, *natukasi-i* ‘remember with nostalgia’, *nikurasi-i* ‘hate’, *urayamasi-i* ‘envious’, *uresi-i* ‘delighted’, etc. Also, I sometimes call the subject of SubjExp predicates “experiencer subject”. In contrast with SubjExp adjectives, adjectives like *kawai-i* do not show a PR, as seen in (2b). I call adjectives of this class the non-SubjExp class.

The second relevant property of the PR is that the restriction is sensitive to clause type. As noted in Kuroda (1973) and others, the choice of person is affected by whether the clause is declarative or interrogative. The experiencer subject must be first person in declarative clauses and second person in interrogative clauses. Compare (2a) with (3):

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<sup>1</sup> The PR effect is not observed in narrative contexts (Kuroda 1973). Sentence final particles such as *yo* are used to control for this factor, i.e. to force sentences to be interpreted in regular direct speech contexts. See Tenny (2006) for relevant discussion.

- (3)       {\*watasi/ kimi/ \*Atsuko}-wa kanasi-i -desu -ka  
           I        you    Atsuko -Top sad -Prs -COP.POL-Q  
           ‘{\*Am I, Are you, \*Is Atsuko} sad?’

Tenny (2006) proposes that sentences of the type given in (2a) and (3) involve two higher functional heads, namely Speech Act (= Sa<sup>o</sup>) and Evidentiality (= Evid<sup>o</sup>) and that these heads have features that restrict the kind of elements that can show up in their specifier. In a Tenny style analysis, the experiencer subject, which is generated in the predicate-internal subject position, must move up to the Spec,SaP through Spec,EvidP. The core idea seems to be that the moving element must “agree” with each head. The relevant features are, Tenny proposes, those that define person pronouns: [±author], [±discourse participant] and [±sentient] (see Harley and Ritter 2002). As is seen in (4), which illustrates the derivation of (2a), Subj is required to bear [+author], [+discourse participant] and [+sentient]. This combination of features excludes Subj from not being first person:

- (4)       [<sub>SaP</sub> Subj<sub>i</sub> Sa<sup>o</sup><sub>(+author & +discourse participant)</sub> [<sub>EvidP</sub> t<sub>i</sub> Evid<sup>o</sup><sub>(+sentient)</sub> ... [<sub>AP</sub> t<sub>i</sub> sad ...

Neither you (bearing [-author] & [+discourse participant] & [+sentient]) nor she (bearing [-discourse participant] & [+sentient]) is allowed to occur in (4) because the features of these expressions fail to match the features of the head(s).

### 1.2.2. Embedding Subject Experiencer Predicates

Now let us consider (5a-b), where the SubjExp adjective *nikurasi-i* ‘hate’ is embedded under say (5a) or under the interrogative verb ask (5b) (we use Δ to refer to empty experiencer subject):

- (5) a.   Taro<sub>i</sub>-wa   Atsuko<sub>j</sub>-ni   [Δ<sub>i/\*j</sub> watasi-no tomodati-ga nikurasi -i -to] itta  
           Taro-Top   Atsuko -Dat       my            friend-Nom hate   -Prs -C   said  
           ‘Taro<sub>i</sub> said to Atsuko<sub>j</sub> that {he<sub>i</sub>, \*she<sub>j</sub>} hated my friend.’
- b.   Taro<sub>i</sub>-wa   Atsuko<sub>j</sub>-ni   [Δ<sub>\*i/j</sub> watasi-no tomodati-ga   nikurasi -i -ka] kiita  
           Taro-Top   Atsuko -Dat       my            friend -Nom hate   -Prs -Q   asked  
           ‘Taro<sub>i</sub> asked Atsuko<sub>j</sub> if {\*he<sub>i</sub>/she<sub>j</sub>} hated my friend.’

Δ is understood as referentially dependent on the author of the reported assertion in (5a) and on the addressee of the reported question in (5b). In both examples, it is impossible to interpret Δ as referring to the actual speaker or hearer of the utterance. Namely, (5a) cannot mean that Taro said to Atsuko that I hated my friend, and (5b) cannot mean that Taro asked Atsuko if you hated my friend.

One might say that embedded clauses such as those found in (5) always involve direct quotation. If so, and if Δ is a null first or second person element, then it might follow that in

(5a),  $\Delta$  must be understood as the author of the reported speech. However, there are many ways to show that this cannot be correct. For instance, when first person expressions such as *watasi*, *boku* and *ore* occurring in a quotative clause refer to the actual speaker, the quotative clause cannot be a direct quote (see Speas 2000, Schlenker 2003, Anand & Nevins 2004 for indexicals that this does not hold of). Given this, the to-clause in (5a) cannot be a direct quote when my friend refers to the actual speaker's friend. Under this indirect quote interpretation of (5a), the experiencer subject must still be understood as Taro. Thus, when SubjExp predicates occur in the complement clause of verbs like say, think or ask, the restriction on the interpretation of their subject arises in such a way that the understood subject must be bound by the matrix subject or object.

It is worth pointing out that binding by the matrix subject or object does not seem to be a sufficient condition for the SubjExp-adjectival construction to be acceptable. Take (6a,b). The SubjExp adjective *urayamasi-i* 'envious' and the non-SubjExp adjective *kuwasi-i* 'familiar' are embedded under *omo-u* 'think' in (6a) and (6b), respectively ( $\emptyset$  is used to refer to the empty subject of non-SubjExp predicates). Both the reflexive *zibun* and the pronoun *kanozyo* are bound by the matrix subject, but the sentence does not sound as good as when  $\Delta$  is used:

- (6) a. Atsuko<sub>i</sub>-wa [ $\{\Delta_i / ?*zibun_i$ -ga/ \* kanozyo<sub>i</sub>-ga} *watasi-no tomodati-o*  
 Atsuko-Top self -Nom she -Nom my friend-Acc  
*urayamasi-i -to*] *omotta*  
 envious -Prs -C thought  
 'Atsuko<sub>i</sub> thought that  $\{\Delta_i, ?*self_i, *she_i\}$  was envious of my friend.'
- b. Atsuko<sub>i</sub>-wa [ $\{\emptyset_i / zibun_i$ -ga/ kanozyo<sub>i</sub>-ga} *watasi-no tomodati-ni*  
 Atsuko-Top self -Nom she -Nom my friend-Dat  
*kuwasi -i -to*] *omotta*  
 familiar -Prs -C thought  
 'Atsuko<sub>i</sub> thought that  $\{\emptyset_i, self_i, she_i\}$  knew a lot about my teacher.'

The prediction about the status of the examples in (6) under a Tenny style theory depends on what features the null category  $\Delta$ , the reflexive *zibun* and the pronoun *kanozyo* would have. The theory correctly predicts that *kanozyo* is disallowed because this [-discourse participant] expression fails to agree with the Speech Act head. We will not explore predictions of the agreement-based approach any further. Rather we would like to ask what kind of element the null subject in (6a) is.

### 1.2.3. $\Delta = \text{OC PRO}$

We claim that  $\Delta$  is OC PRO. The examples given in (7)-(9) show that  $\Delta$  acts like OC PRO:

- (7) a.  $\emptyset$  kakkoi -i -to ippantekini omow -are -tei -ru  
 good-looking -Prs -C generally think -Pass -Asp-Prs  
 Lit. ‘*pro*<sub>i</sub> is thought *t*<sub>i</sub> is smart.’ or ‘It is thought *pro* is smart.’
- b. \* $\Delta$  uresi -i -to ippantekini omow -are -tei -ru  
 delighted -Prs -C generally think -Pass -Asp-Prs  
 Lit. ‘ $\Delta$ <sub>i</sub> is thought *t*<sub>i</sub> is delighted’ or ‘It is thought  $\Delta$  is delighted.’
- (8) a. Hiroshi<sub>i</sub>-no zosyu<sub>j</sub> -wa [ $\emptyset$ <sub>i/j</sub> Atsuko-ni kibisi -i -to] omotta  
 Hiroshi’s assistant-Top Atsuko-Dat hard -Prs -C thought  
 ‘Hiroshi<sub>i</sub>’s assistant<sub>j</sub> found that {Hiroshi<sub>i</sub>, Hiroshi’s assistant<sub>j</sub>} was hard on Atsuko.’
- b. Hiroshi<sub>i</sub>-no zosyu<sub>j</sub> -wa [ $\Delta$ <sub>\*i/j</sub> Atsuko-o nikurasi-i -to] omotta  
 Hiroshi’s assistant-Top Atsuko-Acc hate -Prs-C thought  
 ‘Hiroshi<sub>i</sub>’s assistant<sub>j</sub> found that {\*Hiroshi<sub>i</sub>, Hiroshi’s assistant<sub>j</sub>} hated Atsuko.’
- (9) a. Mari<sub>i</sub>-wa Hiroshi<sub>j</sub>-ni [ $\emptyset$ <sub>i/j</sub> ano mati-ni kuwasi-i-to] omotte hosikatta  
 Mari-Top Hiroshi-Dat that town-Dat familiar-Prs-C to.think wanted  
 ‘Mari<sub>i</sub> wanted Hiroshi<sub>j</sub> to think that {she<sub>i</sub>, he<sub>j</sub>} knew a lot about that town.’
- b. Mari<sub>i</sub>-wa Hiroshi<sub>j</sub>-ni [ $\Delta$ <sub>\*i/j</sub> ano mati-o natukasi-i -to] omotte hosikatta  
 Mari-Top Hiroshi-Dat that town-Acc nostalgic-Prs-C to.think wanted  
 ‘Mari<sub>i</sub> wanted Hiroshi<sub>j</sub> to think that {\*she<sub>i</sub>, he<sub>j</sub>} missed that town.’
- (10) a. \*Taro<sub>i</sub>-wa [ $\Delta$ <sub>i</sub> boku-no imooto-ga urayamasi-i -to] kanzi-rare-ta  
 Taro-Top me-Gen sister -Nom envious -Prs-C feel-Pass-Past  
 Lit. ‘Taro<sub>i</sub> was felt that he<sub>i</sub> was envious of my sister.’
- b. Taro<sub>i</sub>-wa [ $\Delta$ <sub>i</sub> boku-no imooto -ga urayamasi-i -ka] kik-are -ta  
 Taro-Top me -Gen sister -Nom envious -Prs-C ask-Pass-Past  
 ‘Taro<sub>i</sub> was asked if he<sub>i</sub> was envious of my sister.’

The examples in (7), which are impersonal passives (see Saito 1985: 203), show that  $\Delta$  needs an antecedent while  $\emptyset$  does not. (8) shows that  $\Delta$  must be c-commanded by its antecedent, whereas  $\emptyset$  does not have to be. In (9a) and (9b), the most deeply embedded empty subject has two potential antecedents. The unacceptability of the *i* reading of (9b) shows that  $\Delta$  cannot be bound by the nonlocal antecedent. Note that  $\emptyset$  in (9a) is fine with a long distance antecedent. The contrast between (10a) and (10b) is analogous to \**John was hoped to win* vs. *John was told to win*; hence a typical contrast between subject control and object control.

In addition, the experiencer subject exhibits interpretive properties of standard OC PRO. For instance, when an “only NP” is the antecedent for  $\Delta$  and  $\emptyset$ , the former must be construed “covariantly” (11a), whereas the latter can be either construed “covariantly” or “invariantly” (11b):

- (11) a. Hiroshi<sub>i</sub>-dake-ga [ $\Delta_i$  Mari-no koto-o nikurasi-i -to] omot-tei -ru  
 Hiroshi-only -Nom Mari-Gen thing-Acc hate -Prs-C think-Asp-Prs  
 ‘Only Hiroshi<sub>i</sub> thinks that [i hates Mari].’  
 i. Only Hiroshi is an x such that x thinks that x hates Mari  
 ii. \*Only Hiroshi is an x such that x thinks Hiroshi hates Mari
- b. Hiroshi<sub>i</sub>-dake-ga [ $\emptyset_i$  Mari-no koto-ni kuwasi-i-to] omot-tei -ru  
 Hiroshi-only-Nom Mari-Gen thing-Dat familiar-Prs-C think-Asp-Prs  
 ‘Only Hiroshi<sub>i</sub> thinks that [ $\emptyset_i$  knows a lot about Mari].’  
 i. Only Hiroshi is an x such that x thinks that x knows a lot about Mari  
 ii. Only Hiroshi is an x such that x thinks that Hiroshi knows a lot about Mari

Thus, like OC PRO,  $\Delta$  must be understood as a bound variable, while  $\emptyset$  can be referential (Higginbotham 1992). (The same result is found by looking at ellipsis cases such as Stripping.) Also, subject controlled  $\Delta$ , just like subject controlled PRO, does not allow for a non-de se reading (see Chierchia 1989, Higginbotham 1992, among many others). Consider (12a-b):

- (12) a. Mari<sub>i</sub>-wa [ $\Delta_i$  Taro-o nikurasi-i -to] omotta  
 Mari-Top Taro-Acc hate -Prs-C thought  
 ‘Mari<sub>i</sub> thought that [i hated Taro].’
- b. Mari<sub>i</sub>-wa [ $\emptyset_i$  Taro-ni kibisi-i -to] omotta  
 Mari-Top Taro-Dat hard -Prs-C thought  
 ‘Mari<sub>i</sub> thought that [ $\emptyset_i$  was hard on Taro].’

(12a) is judged as infelicitous in situations where Mari is misinformed about her own identity. Suppose Mari wrote nasty things about Taro in her diary. One day she read them when she was completely drunk. Without knowing that they were written by her, she thought: “This girl really hates Taro!” Statement (12a) is rejected in a context of this kind. By contrast, (12b), which involves a non-SubjExp adjective, allows for a non-de se interpretation. Suppose that at the end of our diary story, Mari thought: “This girl is really hard on Taro.” Statement (12b) is readily accepted.

### 1.3. Analysis

#### 1.3.1. The Role of the Speech Act Head

I propose that SubjExp predicates must take OC PRO as their subject and that they are bound by the Speech Act head:

$$(13) \quad \text{NP}_i \text{ thinks } [\text{SaP Sa}^\circ_{(+\text{author})_i} [\text{TP PRO}_i \text{ T}^\circ [\text{AP t}_{\text{PRO}} \text{ Adj} \dots$$

When the SaP is embedded under *ask*,  $\text{Sa}^\circ$  bears [-author], and presumably the head is spelled out as the interrogative complementizer *ka*. This proposal incorporates Tenny's (2006) idea that the Speech Act head constitutes an important component in determination of the interpretation of the subject of Japanese SubjExp adjectives, together with Speas's (2000) suggestion that the embedded  $\text{Sa}^\circ$  can be co-indexed with a matrix element.

One advantage of this analysis is that (6a) is correctly expected to be degraded with *zibun* 'self' and *kanozoyo* 'she' if we assume that OC PRO is in complementary distribution with *zibun*. (We will return to this issue in section 2.) Also, a unified account of the Person Restriction and the OC effects becomes possible if the Sa head in root clauses is assigned the value "actual speaker (or hearer)", which is represented by the feature [+author-@] (or [-author-@]). In this view, (2a) may be analyzed as in (14):

$$(14) \quad [\text{SaP Sa}^\circ_{(+\text{author-@})_i} [\text{TP PRO}_i \text{ T}^\circ [\text{AP t}_{\text{PRO}} \text{ Adj} \dots$$

It should be noted that OC PRO is locally c-commanded by the Sa head in (14) and therefore the licensing condition for the empty category is satisfied even in root contexts. In this particular implementation of an OC analysis, topic phrases like those found in (2a) and (3) are taken to be some sort of left-dislocated element. In the next subsection, we will see independent evidence that Sa has the ability to bind NPs.

#### 1.3.2. $\text{Sa}^\circ$ as a Potential Binder

Given that the controller-controlee relation must be local, we expect that a potential antecedent NP provided below SaP can and must be the antecedent for the OC PRO; see Alexiadou & Anagnostopoulou 1998 for the idea that heads can be a binder. This state of affairs is depicted as in (15), which illustrates a root clause with the SubjExp adjective *uresi-i* 'delighted':

$$(15) \quad [\text{SaP Sa}^\circ_{(+\text{author-@})_j} [\text{XP Hiroshi}_i \text{ X}^\circ [\text{PRO}_i \text{ delighted} \dots$$

Note that Hiroshi should control the subject of delighted since it is closer to PRO than  $\text{Sa}^\circ$  is. Thus non-first person should be allowed to be the subject of delighted. Kuroda 1973

documented that various heads that appear above a SubjExp predicate lift the Person Restriction (see also Aoki 1986, Tenny 2006):<sup>2</sup>

- (16) a. Hiroshi-wa sono mooside-ga uresi -i {-nitigainai/-kamosirenai} -yo  
 Hiroshi-Topthat offer -Nom delighted -Prs -must/ -might -SFP  
 ‘Hiroshi {must/might} be delighted with that offer.’
- b. Hiroshi-wa sono mooside-o uresi -gat -tei -ru -yo  
 Hiroshi-Top that offer -Acc delighted -GAR-Asp-Prs -SFP  
 ‘Hiroshi appears to be delighted with that offer.’
- c. Hiroshi-wa sono mooside-ga uresi -soo -da -yo  
 Hiroshi-Topthat offer -Nom delighted -Evid -Cop-SFP  
 ‘Hiroshi looked delighted with that offer.’

The modals in (16a) are perhaps located above TP, and the evidentials found in (16b) and (16c) are in between TP and AP, judging from their morphological distribution (see section 1.3.4 for further discussion of *gar-u*). These heads discharge a specifier that serves as the antecedent for PRO.<sup>3</sup>

Another prediction from the present proposal that Sa° is a binder has to do with an obviation effect. In a schematic representation like (17), where I is c-commanded by Sa<sub>(+author-@)</sub>, if the local domain for this pronominal element includes Spec,SaP, then this configuration should result in a Condition B violation (see Kuroda 1973: 378 for a discussion of the oddness of examples of this sort):

(17) [SaP Sa<sub>(+author-@)i</sub> [ModalP I<sub>i</sub>-Top must [TP PRO<sub>i</sub> T [AP t<sub>PRO</sub> delighted ...

(18) \*? {watasi<sub>i</sub>-wa/ pro<sub>i</sub>} sono mooside-ga uresi -i -nitigainai  
 I -Top that offer -Nom delighted -Prs -Modal  
 ‘{I/pro} must be delighted with that offer.’

<sup>2</sup> Another way in which the PR becomes absent or weak is discussed in the literature. When SubjExp predicates appear in relative and nominalized clauses, the experiencer subject is not limited to first person. I won’t be able to discuss these phenomena in this paper. See Kuroda 1973 and Tenny 2006 for details.

<sup>3</sup> How does the subject obtain a  $\theta$ -role when the modals and evidentials are not thematic? In fact, the epistemic modal and the evidential *soo-da* do not obviously look thematic. This may suggest either that the subject is licensed by predication of some sort or that it actually raises out of the AP. The latter possibility is reminiscent of Hornstein’s movement-based approach to OC, where OC PRO is analyzed as NP-trace. See footnote 5.

The obviation effect arises, as expected, with the experiencer subject in *to*-complements:

- (19) Taro<sub>i</sub>-wa [<sub>SaP</sub> { \*kare<sub>i</sub>-ga/ \*pro<sub>i</sub>/ watasi-ga } sono mooside-ga  
 Taro-Top he -Nom I -Nom that offer -Nom  
 uresi -i -nitigainai-to] omotteiru  
 delighted -Prs-must -C thinks  
 ‘Taro<sub>i</sub> thinks that { \*he<sub>i</sub>, I } must be delighted with that offer.’

One potential difficulty arises here. If raising to Spec,ModalP from Spec,TP is allowed, examples like (18) should allow for a derivation in which PRO moves to Spec,ModalP. Then we would predict that the example is good, contrary to fact. Why is it that (18) cannot have a derivation like (20)?

- (20) [<sub>SaP</sub> Sa(+author-@)<sub>i</sub> [<sub>ModalP</sub> PRO<sub>i</sub> must [<sub>TP</sub> t<sub>PRO</sub> T [<sub>AP</sub> t<sub>PRO</sub> delighted ...

The hypothesis entertained here is that Spec,ModalP is a Case position. If we assume that OC PRO cannot be Case-marked (see e.g. Bouchard 1983), then (20) is correctly ruled out. Note however that this solution begs one question. How can we avoid PRO being Case-marked in present tense-marked clauses in (14) or (17), to begin with?

### 1.3.3. Case for the Experiencer Subject of *To*-CPs

There is evidence that the subject position of the *to*-clause with SubjExp adjectives is not a Case position. *To*-CPs with tense-marked SubjExp adjectives behave strikingly similar to their non-finite analog (often called a “small clause”), where the subject position is, less controversially, a non-Case position (cf. Takezawa 1987). Consider (21):

- (21) Taro<sub>i</sub>-wa [<sub>Δ<sub>i</sub></sub> Atsuko-o urayamasi-ku] omotta  
 Taro-Top Atsuko-Acc envious -Nonfin thought  
 ‘Taro felt envious of Atsuko.’

Building on Rumiko Sode’s observation, Koizumi (2002) analyzes sentences like (21) as involving OC and an unusual kind of Exceptional Case Marking; see Sode (2002) and Koizumi (2002) for other properties of adjectival small clause constructions.<sup>4</sup> As mentioned in section 1.1, two-place SubjExp adjectives lack the ability to assign accusative case to their object. If we assume with Bhatt (2005) that OC PRO is invisible for the purposes of Minimality (cf. Bobaljik & Wurmbrand 2004), it makes sense that the little *v* in the matrix

<sup>4</sup> The verb *kanzi-ru* ‘feel’ as well as *omo-u* ‘think’ allows ECM into *to*-CPs of the relevant sort, which apparently violates Minimality. Not all verbs that can select a *to*-CP with SubjExp predicates allow it, however. Neither *i-u* ‘say’ nor interrogative verbs such as *kik-u* ‘ask’ case-mark the embedded object. I do not have an answer to the question of what gives rise to this distinction, given that these verbs assign accusative case in other environments.

clause can case mark the internal argument in the embedded small clause.<sup>5</sup> As is seen in some of the examples discussed so far, the same kind of ECM is obtained with *to*-clauses as well as small clauses:

- (22) Taro<sub>i</sub>-wa [ $\Delta_i$  Atsuko-o urayamasi-i -to] omotta  
 Taro-Top Atsuko-Acc envious -Prs-C thought  
 ‘Taro thinks that he is envious of Atsuko.’

Finally, let us observe that ECM is barred with a non-SubjExp predicate. Uma-i ‘skillful’ is not subject to the PR and takes a nominative object (*Taro-wa yakyuu-ga uma-i-yo* ‘Taro is good at baseball’):

- (23) Taro<sub>i</sub>-wa [ $\Delta_{ij}$  yakyuu{-ga/\* -o} uma -i -to] omotta  
 Taro-Top baseball-Nom -Accskillful -Prs-C thought  
 ‘Taro thought that {he, someone else} was good at baseball.’

Because  $\Delta$  is not PRO, it causes a Minimality effect. These unusual ECM facts can be accounted for if we assume that the embedded subject of (22), like the one of (21), is a non-Case position, as well as that OC PRO is invisible for Minimality. Hence these facts support our explanation for the illicit derivation discussed in (20).

#### 1.3.4. How Do SubjExp and Non-SubjExp Predicates Differ?

A distinction should be made between SubjExp and non-SubjExp predicates somehow. I argue that SubjExp predicates lexically require PRO as their external argument. This is reminiscent of “inherently reflexive predicates” in the sense of Pesetsky (1995). In his theory of causative verbs, Pesetsky suggests that the root of verbs like annoy, i.e.  $\sqrt{\text{annoy}}$ , is inherently reflexive in that its external argument must be a reflexive element. Pesetsky also notes that Japanese psych verbs such as *kanasim-u* (‘be sad’) should be treated the same (p. 309, fn. 105), suggesting that their external argument is a null reflexive. Suppose Pesetsky’s null reflexive is OC PRO (as he hinted at) and that the verb *kanasim(-u)* is derived by embedding the root *kanasi* under a verbalizer. An analysis along these lines would give us (24), which represents the VP of *Hiroshi-wa sore-o kanasin-da-yo* (Hiroshi-Top that-Acc be.sad-Past-SFP) ‘Hiroshi was sad about that.’

- (24) [<sub>VP</sub> Hiroshi<sub>i</sub> [<sub>XP</sub> PRO<sub>i</sub> sore-o kanasi ] V ]

This analysis departs from Pesetsky’s in that what is inherently reflexive is not the verb

<sup>5</sup> The invisibility of OC PRO may be derived by appealing to a Hornstein style movement-based approach to OC, assuming traces are irrelevant for Minimality (see Chomsky 1995: 301). In this alternative implementation, the embedded subject raises to the matrix Spec,<sub>v</sub>P (cf. Koizumi 2002) to check the external  $\theta$ -role of *think* (perhaps through Spec,SaP). The light verb then assigns Case to the embedded object. For reasons of space, I won’t fully spell out this theory here.

*kanasim* but the underlying root *kanasi*. Note that the *-gar-u* form of *kanasi* (see the discussion of (16b)) can be analyzed in the same way. The affix attaches to the root *kanasi* to yield the SubjExp verb *kanasi-gar-u*. Nothing seems to prevent us from extending virtually the same analysis to verbs like *kanasim-u*, which Pesetsky analogizes to a root like  $\surd$ *annoy* in his system. It should also be noted that the PR is not observed with *kanasim-u* as well as *kanasi-gar-u*. Thus, it seems plausible to conclude that *kanasi-i* ‘sad-Prs’ displays a PR because it lacks a verbalizer and to conclude that non-SubjExp predicates are not inherently reflexive.

#### 1.4. Embedding SubjExp Adjectives under *Because*

Given our conclusion that the subject of SubjExp adjectives is OC PRO, it is reasonable to ask whether the OC effect can be observed in other environments besides to-complement clauses. The experiencer subject in adjunct clauses headed by *-node* ‘because’ seems to act like OC, although the full range of data cannot be examined here for space reasons:

- (25) a. Mari<sub>i</sub>-wa John<sub>j</sub>-ni [ $\Delta_{i/*j}$  sono koto -ga kanas-i -node] hanasikaketa  
 Mari-Top John-Dat that thing-Nom sad -Prs-because talked.to  
 ‘Mari<sub>i</sub> talked to John<sub>j</sub> because {Mari<sub>i</sub>, \*John<sub>j</sub>} was sad about that.’
- b. Mari<sub>i</sub>-wa John<sub>j</sub>-ni [ $\Delta_{i/j}$  sono koto -ni kuwasi -i -node] hanasikaketa  
 Mari-Top John-Dat that thing-Dat familiar -Prs-because talked.to  
 ‘Mari<sub>i</sub> talked to John<sub>j</sub> because {Mari<sub>i</sub>, John<sub>j</sub>} knew a lot about that.’
- c. Mari<sub>i</sub>-wa John<sub>j</sub>-ni [ $\Delta_{*i/j}$  sono koto -ga kanasi-soo -na -node] hanasikaketa  
 Mari-Top John-Dat that thing-Nom sad -Evid -Cop-because talked.to  
 ‘Mari<sub>i</sub> talked to John<sub>j</sub> because {\*Mari<sub>i</sub>, John<sub>j</sub>} looked sad about that.’
- (26) a. \*Taro<sub>i</sub>-no syoosin -wa [ $\Delta_i$  kanasi-i -node] yameninatta  
 Taro-Gen promotion-Top sad -Prs-because was.cancelled  
 ‘Taro’s promotion was cancelled because he was sad.’
- b. Taro<sub>i</sub>-no syoosin -wa [ $\Delta_i$  waka -i -node] yameninatta  
 Taro-Gen promotion-Top young-Prs-because was.cancelled  
 ‘Taro’s promotion was cancelled because he was young.’
- c. Taro<sub>i</sub>-no syoosin -wa [ $\Delta_i$  kanasi-soo -na -node] yameninat-ta  
 Taro-Gen promotion-Top young-Prs -Cop-because was.cancelled  
 ‘Taro’s promotion was cancelled because he looked young.’

(25a,b) show that while the antecedent for  $\Delta$  is in principle freely determined, the antecedent for  $\Delta$  is always the subject of the clause one higher up. (26a,b) suggest that  $\Delta$ , unlike  $\emptyset$ , needs

to be c-commanded by its antecedent. It is interesting to note that an obviation effect arises when an intermediate head such as *soo-da* is added (as in the c-examples), in the same way as it arises for root and *to*-complement clauses. From these data, we conclude that if our explanation for (18) and (19) is correct, some binder is projected in node-clauses as well as in root and *to*-clauses (Tenny 2006, Hara 2006) and that the node-clauses found in (25a,c) and (26a,c) are adjoined to a position c-commanded by the matrix subject and not by the object.

### 1.5. Conclusion for Section 1

This paper observed that the subject of Subject Experiencer predicates is OC PRO and proposed a unified analysis of the Person Restriction and the exceptional case-marking phenomenon found when this class of predicates is embedded under verbs such as *omo-u* ‘think.’ Our account crucially relies on the assumption that the distribution of OC PRO is partly regulated by Case Theory. In particular, we claim that OC PRO cannot be Case-marked. Note that, as we observed, the empty subject of non-SubjExp behaves like a pronoun or a reflexive like *zibun*.

Before closing the section, I would like to suggest a way to prevent OC PRO from occurring in *to*-clauses (and node-clauses) whose predicate is non-SubjExp one. Note that nothing we said so far prevents OC PRO from being generated as a non-experiencer subject and that if it is possible for the subject not to bear Case, OC properties should be observed in sentences such as (7a)-(9a), or ECM should be possible in (23). Thus, I am forced to conclude that the Case assigner for the subject should be active in these cases, unlike in the OC cases. Although I do not have a definitive answer to the question of where this dichotomy with respect to Case assignment follows from, I would like to suggest one possibility. This dichotomy might be tied to a fact concerning the tense of embedded clauses (see Ogihara 1996 for a standard analysis of a past-under-past sentence like the one found in (27a) and its present-under-past counterpart):

- (27) a. Hiroshi<sub>i</sub>-wa [ $\Delta_i$  boku-no kazoku-ni kuwasikat-ta -to] {omotta/  
Hiroshi-Top my family -Dat familiar -Past-C think.Past  
omot-tei -ru}  
think-Asp-Prs  
‘{Hiroshi thought he had knew, Hiroshi thinks he knew} a lot about my family.’
- b. \*Hiroshi<sub>i</sub>-wa [ $\Delta_i$  boku-no kazoku-o nikurasikat-ta -to] {omotta/  
Hiroshi-Top my family -Acc hate -Past-C think.Past  
omot-tei -ru}  
think-Asp-Prs  
‘{Hiroshi thought he had hated, Hiroshi thinks he hated} my family.’

SubjExp predicates, unlike non-SubjExp ones, seem to lack the ability to be in the past tense form in a sentential complement. Suppose now that the data in (27) show that the embedded T, when combined with a SubjExp-adjectival root, cannot have a tense feature (cf. Wurmbrand

2006 for relevant discussion). If carrying a tense feature is a necessary condition for a head to be a Nominative Case assigner, then the proposed Case-theoretic difference between SubjExp and non-SubjExp predicates can be made to follow from their difference with respect to tense, put together with the particular assumption about the relationship between tense and Nominative Case.

## 2. Further Issues on Long-distance ECM

I claimed in section 1.3.3 that the accusative Case for the theme argument of SubjExp predicates in examples like (22) comes from the matrix clause. (22) is repeated below:

- (22) Taro<sub>i</sub>-wa [ $\Delta_i$  Atsuko-o urayamasi-i -to] omotta  
 Taro-Top Atsuko-Acc envious -Prs-C thought  
 ‘Taro thinks that he is envious of Atsuko.’

The claim that the accusative Case marking under consideration is a kind of ECM seems empirically correct. The argument comes from the unavailability of accusative Case with “potentialized” predicates taking dative subjects. Accusative Case marking of the theme argument is incompatible with the dative experiencer whereas it is with nominative experiencer, as is familiar in the literature:

- (28) a. Taro-ni Atsuko- $\{ga/ *o\}$  home-rare-ru (koto)  
 Taro-Dat Atsuko Nom Acc praise-Pot-Prs that  
 ‘(... that) Taro can praise Atsuko.’
- b. Taro-ga Atsuko- $\{ga/ o\}$  home-rare-ru (koto)  
 Taro-Nom Atsuko Nom Acc praise-Pot-Prs that

Whatever the account of the effect of the dative experiencer, when a potentialized ‘complex predicate’ takes a dative subject, the verb that is combined with the affix *(r)er(u)* cannot assign the accusative Case that it would assign when the affixal verb is not present. Given that, if accusative objects of the sort found in (22) are assigned Case by the matrix verb, they must be prevented when the subject is in dative and must be allowed when it is in nominative, when the potential affix attaches to the verb. The judgment for the relevant example seems to go in the direction we will expect if *-o* comes from *omow* ‘think’:

- (29) a. Taro<sub>i</sub>-ni [ $\Delta_i$  Atsuko- $\{ga/ *o\}$  urayamasi-i -to] om -e -ru (koto)  
 Taro-Dat Atsuko- Nom Acc envious -Prs-C think-Pot-Prs (that)  
 Lit. ‘(... that) Taro can think that he is envious of Atsuko.’

- b. Taro<sub>i</sub>-ga [ $\Delta_i$  Atsuko- $\{ga/ o\}$  urayamasi-i -to] om -e -ru (koto)  
 Taro-Nom Atsuko- Nom Acc envious -Prs-C think-Pot-Prs (that)

The long distance ECM analysis gains further support. Observe first that, as Boeckx and Hornstein (2006) correctly point out, the run-of-the-mill ECM process is barred when an indirect object appears in the matrix clause, as exemplified in (30):

- (30) \* John PERSUADED Bill [Mary to be clever]  
 cf. John persuaded Bill that Mary was clever.

No verbs like PERSUADE do not seem to exist in English. Likewise, we do not find any double object verb that allows the embedded object to be marked with accusative in the Japanese construction under investigation. For instance, (31) is unacceptable:

- (31) Taro<sub>i</sub>-wa Hiroshi-ni [ $\Delta_i$  Atsuko- $\{*o/ \checkmark ga\}$  urayamasi-i -to]  
 Taro-Top Hiroshi-Dat Atsuko- Acc Nom envious -Prs-C  
 {itta/ tutaeta}  
 said inform

Lit. ‘Taro {said to, informed} Hiroshi that he is envious of Atsuko.’

If the process involved here is ECM, i.e. the object of SubjExp predicates is assigned Case by the verb of the clause one higher up, the fact that the sentence pattern found in examples like (31) is not attested is expected.

Having argued that the construction that we are dealing with involves exceptional Case marking, let us turn to the analogous construction with nominative objects, which is shown in (32a):

- (32) a. Hiroshi<sub>i</sub>-wa [ $e_i$  Mari-ga nikurasi -i -to] {omotta/ kanzita}  
 Hiroshi-Top Mari-Nom hate -Prs-C thought felt

‘Hiroshi thought that he hated Mari.’

- b. Hiroshi<sub>i</sub>-wa [ $\Delta_i$  Mari-o nikurasi -i -to] {omotta/ kanzita}  
 Hiroshi-Top Mari-Acc hate -Prs-C thought felt

If we are right that ultra long-distance ECM is possible due to the fact that OC PRO is invisible for Case marking, and if nominative objects are licensed by [+finite] T, i.e. a Case-assigning T (Takezawa 1987, Koizumi 1995), then we expect that the null subject found in examples like (32a), as opposed to the one found in examples like (32b), behaves differently than OC PRO does. The position of the null subject is a Case position.

Curiously enough, the accusative and the nominative object constructions seem to differ from each other with respect to long distance antecedence. As we have seen, the accusative object construction does not allow for long distance antecedents for the null subject. The

nominative object construction, however, seems to allow for this interpretive possibility. Consider the pair of (33) and (34) below. The observation is that the *i* reading of (34) is considerably easier than the analogous reading of (33):

- (33) Mari<sub>i</sub>-wa [Hiroshi<sub>j</sub>-ni [ $\Delta$ \*<sub>i/j</sub> Nagoya-o natukasi -i -to]  
 Mari-Top Hiroshi-Dat Nagoya-Acc nostalgic -Prs-C  
 omotte] hosikatta  
 to.think wanted  
 ‘Mari<sub>i</sub> wanted Hiroshi<sub>j</sub> to think that {\*she<sub>i</sub>, he<sub>j</sub>} missed Nagoya.’
- (34) Mari<sub>i</sub>-wa [Hiroshi<sub>j</sub>-ni [<sub>e<sub>i/j</sub></sub> Nagoya-ga natukasi -i -to]  
 Mari-Top Hiroshi-Dat Nagoya-Nom nostalgic -Prs-C  
 omotte] hosikatta  
 to.think wanted  
 ‘Mari<sub>i</sub> wanted Hiroshi<sub>j</sub> to think that {she<sub>i</sub>, he<sub>j</sub>} missed Nagoya.’

We observe that statement (30) is accepted in contexts that are biased towards the ‘long distance’ interpretation (= *i* reading) whereas (33) cannot be. The following scenario provides such a situation.

- (35) Mari, who is a Japanese girl from Nagoya, came to Hyderabad to study Indian languages a few weeks ago. She met Hiroshi, who is a Japanese guy living there for years. He is very nice to new Japanese people who haven’t gotten used to the way things work in Hyderabad. Mari knows that Hiroshi even buys East Asian food for Japanese people who miss their home country a lot. Even though Mari doesn’t miss Japan at all and has decided to stay in India, she wants to have him buy her some Japanese food.

While all the speakers I consulted with uniformly reject statement (33), some speakers including myself accept statement (34) when it is made under the situation described above. This is not surprising if the null subject occurring in the construction with nominative objects is a different creature from the one occurring in the construction with ECM objects. The former, unlike the latter, is not OC PRO.

The question that arises is what kind of element the embedded null subject found in (34) is. Example (36) suggests that it can be the null counterpart of the reflexive *zibun*, which is a familiar long-distance reflexive (see Kuroda 1965: chapter 5 for relevant discussion):

- (36) Mari<sub>i</sub>-wa [Hiroshi<sub>j</sub>-ni [zibun<sub>i/j</sub>-ga Nagoya-ga natukasi -i -to]  
 Mari-Top Hiroshi-Dat self -Nom Nagoya-Nom nostalgic -Prs-C  
 omotte] hosikatta  
 to.think wanted  
 ‘Mari<sub>i</sub> wanted Hiroshi<sub>j</sub> to think that {she<sub>i</sub>, he<sub>j</sub>} missed Nagoya.’

This example clearly has the ‘long distance’ interpretation in which the reflexive is bound by *Mari*, as well as the other interpretation in which it is bound by the intermediate subject *Hiroshi*.

It is important to note that the “reflexive subject requirement” for SubjExp predicates, which was discussed in section 1.3.4, needs to be met and that the acceptability of (36) shows that it can be met with the overt reflexive *zibun*. I argued above that ultra long distance ECM is obtained only when the local subject is reflexive and does not bear Case. Then, a prediction that we can make is that ECM of the relevant sort should be barred when the most deeply embedded subject is *zibun*. It needs Case. (37) is the relevant example, and it is unacceptable, as expected:

- (37) \*Mari-wa [Hiroshi-ni [zibun-ga Nagoya-o natukasi -i -to]  
 Mari-Top Hiroshi-Dat self -Nom Nagoya-Acc nostalgic -Prs-C  
 omotte] hosikatta  
 to.think wanted

The unacceptability of this example cannot be attributed to the mere presence of *zibun*, given the acceptability of (36). Thus, it must be accounted for in terms of Case. The data presented in (33), (34), (36) and (37) all follow readily from the assumption made in section 1 without any stipulation, put together with the reasonable assumption that the null subject in (34) is the null analogue of *zibun* ‘self’.

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