

### Lexical Evidentiality and the Distribution of OC PRO

This paper identifies a new syntactic configuration in which Obligatory Control PRO (PRO<sup>OC</sup>) is found, contributing to the understanding of OC. In Japanese, a PRO<sup>OC</sup> (i) appears in the subject of certain finite embedded clauses, (ii) is licensed by a *Direct Experience* (DE) predicate, (iii) shows the same locality restriction on its controller as standard PRO<sup>OC</sup>, and (iv) is in complementary distribution with pronouns.

As defined in Kuroda (1973) and Tenny (2004), DE predicates are certain Japanese psychological predicates that must be predicated of the author of the utterance but not the addressee or non-discourse-participants when they appear in indicatives [(1)a]. DE predicates include desiderative *tai* ‘want-to’, *samui* ‘cold’ and others. No such restriction applies to non-DE predicates like potential *eru* ‘can’ [(1)b]. The first data point we make is as follows: when DE predicates are embedded under speech act verbs like *think* or *say* with the complementizer *to*, their empty subject must be interpreted as an anaphor bound by the matrix subject, namely, the author of the indirect speech. This subject behaves like PRO<sup>OC</sup> in the following ways. ① The empty subject needs a c-commanding antecedent [(2)a]; ② it does not allow a split antecedent [(2)b]; ③ it allows a *de se* but not a *de re* interpretation [(2)c]; and ④ when co-indexed with *only NP*, a *covariant* interpretation is necessary [(2)d]. (2)a-d sharply contrast with (3)a-d, where a non-DE predicate *can* is used. The empty subject in the latter environment shows properties of pronouns, not those of PRO<sup>OC</sup>. One might ask whether the complement clauses in (2) are direct quotes whose subject is first person *pro*. We can control for this possibility by embedding a wh-word that takes matrix scope inside the *to*-clause [(4)]. (This would be impossible in a direct quote reading.) When we apply this to the examples in (2), the judgments remain the same. So the most plausible hypothesis is that these empty subjects are an instance of PRO<sup>OC</sup>. Henceforth, we refer to the element as “PRO<sup>DE</sup>” precisely because DE predicates create the environment where the element can and must occur. Note also that PRO<sup>DE</sup> is PRO of the sort that occurs in finite clauses (Landau 2004) since the predicate is inflected with respect to Tense.

To account for the distribution of PRO<sup>DE</sup>, we provide an initial analysis of *to*-clauses under speech act verbs. We propose, building on an idea of Speas (1999), that verbs like *think* can take a Speech Act Phrase (SaP) as their complement and that the head of the phrase, Sa<sup>0</sup>, is specified for the ‘pragmatic role’ feature [+AUT(hor)] for indicatives. Further we hypothesize that the Spec-SaP is occupied by what we call a speech act operator *Op*, which is co-indexed with the matrix subject, as illustrated in (4). Given this, one possible way of looking at the target data is to view the control relation as holding between *Op* and PRO<sup>DE</sup>. The examples in (2) would have a structure of the sort given in (6) under this approach. These assumptions allow us to give an initial account of the contrast between cases involving DE predicates and those involving non-DE predicates [(2)a-d vs. (3)a-d]. We assume (a) (following Tenny) that DE predicates assign the “pragmatic role” value [+DISC(ourse participant)] to their external argument while non-DE predicates do not; and (b) that PRO<sup>DE</sup> can check [+DISC] on DE predicates. In this account, [+DISC] plays a similar role to null Case in the “null Case” theory of PRO (Chomsky & Lasnik 1991).

In ordinary OC such as *John hopes to win*, PRO and its controller must be local to each other. Available data suggest that a similar locality restriction applies to PRO<sup>DE</sup> as well. Since relative clauses lack the Speech Act Phrase layer of the CP (Tenny; cf. Kuroda), then it is expected that PRO<sup>DE</sup> cannot be licensed inside relative clauses even when the predicate is DE. In this instance, the potential controller for PRO<sup>DE</sup> is in the matrix Spec-SaP, as schematically illustrated in (7). The tests given in (8)a-d strikingly show that when *want* appears in relative clauses, its subject ceases to act like PRO<sup>OC</sup>, and instead behaves like *pro*. This makes sense under a Bouchard-type ‘elsewhere’ approach to pronouns, which says that pronouns appear where PRO<sup>OC</sup> cannot appear. Furthermore, suppose now that the controller-PRO relation must be A-chain-like (cf. Hornstein 1999). It is then expected that PRO<sup>DE</sup> must be the highest argument of the predicate shell, because when it is not, the ‘deep’ subject would end up intervening between *Op* and PRO<sup>DE</sup>, as (9) illustrates. This expectation appears to be true. Tenny points out that the person constraint found in cases like (1)a is limited to experiencer arguments. To our knowledge, there exists no predicate that displays the restriction on its *non-subject* argument. In other words, we have not found any predicate like the hypothetical predicate FRIGHTEN, which only differs from English *frighten* except that the object must be the author of the utterance as in *This FRIGHTENed me/\*you/\*her*. This lends strong support to the approach to DE predicates presented here. Our analysis of embedded DE predicates has a further consequence for the analysis of non-embedded DE predicates such as (1)a. Given the machinery proposed so far, PRO<sup>DE</sup>, unlike English PRO<sup>OC</sup>, should be able to appear in matrix clauses by having *Op* as its controller [(10)]. ‘I’ in (1)a then must be analyzed as base-generated in a topic position or as the phonological manifestation of the *Op* element itself.

The results reported here suggest that even though the environments in which PRO<sup>OC</sup> occurs may vary across languages, the controller-controllee relation is local in a strikingly similar way. Furthermore, the expected complementarity of PRO<sup>OC</sup> and pronouns will emerge when the distribution of PRO<sup>OC</sup> in the relevant language is determined.

- (1) a. watasi-wa/\*kimi-wa/\*Taroo-wa/pro<sub>me/you/(s)he</sub> biiru-o nomi-ta-i-yo  
I-TOP/you-TOP/Taro-TOP beer-acc drink-want-PRES-SFP  
“(I’m telling you that) I/\*you/\*Taro/\*(s)he want(s) to drink beer.” [SFP: sentence final particle]
- b. watasi-wa/kmi-wa/Taroo-wa/pro<sub>me/you/(s)he</sub> biiru-ga nom-e-ru-yo  
I-TOP/you-TOP/Taro-TOP beer-NOM drink-can-PRES-SFP
- (2) a. [Taroo<sub>i</sub>-no hahaoya]<sub>j</sub>-wa [e<sub>\*i/j</sub> *Aspects*-o yomi-tai-to] kangaeteiru (① \*non-CC-ing antecedent)  
Lit.: “Taro<sub>i</sub>’s mother<sub>j</sub> thinks [that e<sub>\*i/j</sub> wants to read *Aspects*].”
- b. Taroo<sub>i</sub>-wa Mary<sub>j</sub>-ni [e<sub>i/\*i+j</sub> tizi-ni nari-tai-to] itta (② \*split antecedent)  
Lit.: Taro<sub>i</sub> told Mary<sub>j</sub> [that e<sub>i/\*i+j</sub> want-PRES to become a governor]  
✓Taro<sub>i</sub> told Mary<sub>j</sub> that he<sub>i</sub> wanted to become a governor.  
\*Taro<sub>i</sub> told Mary<sub>j</sub> that they<sub>i+j</sub> (each) wanted to become governors.
- c. sono kanzya<sub>i</sub>-wa [e<sub>i</sub> *Aspects*-o yomi-tai-to] kangaeteiru (③ \*de rel ✓de se)  
Lit.: “That patient<sub>i</sub> thinks [that e<sub>i</sub> wants to read *Aspects*].”
- d. Taroo<sub>i</sub>-dake-ga [e<sub>i</sub> *Aspects*-o yomi-tai-to] kangaeteiru (④ \*invariant reading with *only NP*)  
Lit.: “Only Taro<sub>i</sub> thinks [that e<sub>i</sub> can read *Aspects*].”  
✓Only Taro is an x such that x thinks x wants to read *Aspects*. (Mary doesn’t think she wants to)  
\*Only Taro is an x such that x thinks he wants to read *Aspects*. (Mary doesn’t think he wants to)
- (3) a. [Taroo<sub>i</sub>-no hahaoya]<sub>j</sub>-wa [e<sub>i/j</sub> *Aspects*-o yom-e-ru-to] kangaeteiru (① ✓non-CC-ing antecedent)  
Lit.: “[Taro<sub>i</sub>’s mother]<sub>j</sub> thinks [that e<sub>i/j</sub> can read *Aspects*].”
- b. Taroo<sub>i</sub>-wa Bill<sub>j</sub>-ni [e<sub>i/j/i+j</sub> tizi-ni nar-e-ru-to] itta (② ✓split antecedent)  
Lit.: Taro<sub>i</sub> told Bill<sub>j</sub> [that e<sub>i/j/i+j</sub> can become a governor]  
✓ “Taro<sub>i</sub> told Bill<sub>j</sub> that he<sub>i/j</sub> could become a governor.”  
✓ “Taro<sub>i</sub> told Bill<sub>j</sub> that they<sub>i+j</sub> (each) could become governors.”
- c. sono kanzya<sub>i</sub>-wa [e<sub>i</sub> *Aspects*-o yom-e-ru-to] kangaeteiru (③ ✓de rel ✓de se)  
Lit.: “That patient thinks that e can read *Aspects*.”
- d. Taroo-dake<sub>i</sub>-ga [e<sub>i</sub> *Aspects*-o yom-e-ru-to] kangaeteiru (④ ✓invariant reading with *only NP*)  
Lit.: “Only Taro<sub>i</sub> thinks [that e<sub>i</sub> can read *Aspects*].”  
✓ Only Taro is an x such that x thinks x can read *Aspects*. (Mary doesn’t think she can)  
✓ Only Taro is an x such that x thinks he can read *Aspects*. (Mary doesn’t think he can)
- (4) Taroo<sub>i</sub>-wa [e<sub>i</sub> DC-o **itu** otozure-ta-i-to] itta-no? --- rainen-desu  
Lit.: “Taro<sub>i</sub> said [that e<sub>i</sub> want-PRES to visit DC **when**? --- Next year”
- (5) John<sub>i</sub> thinks [<sub>SAP</sub> Op<sub>i</sub> Sa<sup>0</sup><sub>[+AUT]</sub> [TP ... ]]
- (6) NP<sub>i</sub> says/thinks [<sub>SAP</sub> Op<sub>i</sub> Sa<sup>0</sup><sub>[+AUT]</sub> [TP PRO<sub>i</sub> [<sub>AP</sub> t<sub>i</sub> want ... ] ]]
- (7) [<sub>SAP</sub> Op<sub>i</sub> Sa<sup>0</sup> [TP ... [<sub>NP</sub> NP [<sub>CP</sub> PRO<sup>DE</sup><sub>i</sub> want ... ] ] ] ... ]
- (8) a. [John<sub>i</sub>-no hahaoya]<sub>j</sub>-ga [e<sub>i/j</sub> yomi-ta-i hon]-o katta (① ✓no CC-ing antecedent)  
[John<sub>i</sub>’s mother]-NOM read-want-PRES book-ACC bought  
“John<sub>i</sub>’s mother<sub>j</sub> bought books that e<sub>i/j</sub> wants to read.”
- b. John<sub>i</sub>-wa Mary<sub>j</sub>-to [e<sub>i/j/i+j</sub> nari-tai syokugyoo]-nituite hanasita (② ✓split antecedent)  
J.-TOP M.-with become-want-PRES profession-about talked  
✓John talked with Mary about the job that they (each) wanted to get.
- c. sono kanzya-wa [e yomi-tai hon]-o katta (③ ✓de re/ ✓de se)  
“That patient<sub>i</sub> bought a book that he<sub>i</sub> wanted to read.”
- d. John-dake-ga [[e yomi-tai] hon]-o motteiru (④ ✓invariant reading with *only NP*)  
Lit.: “Only John has a book that e want-PRES to read”  
✓Only John is an x such that x has a book that x wants to read. (Mary doesn’t have a book she wants to)  
✓ “Only John is an x such that x has a book that he wants to read. (Mary doesn’t have a book he wants to)
- (9) [<sub>SAP</sub> Op<sub>i</sub> Sa<sup>0</sup> NP [Pred<sup>DE</sup> PRO<sub>i</sub>]]
- (10) Root: [<sub>SAP</sub> Op<sub>i</sub> Sa<sup>0</sup> [TP PRO<sub>i</sub> want ... ]]

**Selected References:** Bouchard, “The Avoid Pronoun Principle and the Elsewhere Principle,” NELS 13; Kuroda, “Where epistemology, style and grammar meet,” *A festschrift for Morris Halle*; Landau, “The scale of finiteness and the calculus of control,” NLLT 22; Speas, “Person and point of view in Navajo direct discourse complements,” UMOP22; Tenny, “Evidentiality, experiencers, and syntax of sentience in Japanese,” ms.