Japanese Passives and Grammatical Hierarchies

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1. Introduction

In Hoshi (in press), based on Kuroda (1965, 1979, 1983, 1985, 1992), Kuno (1973, 1983, 1986), Saito (1982), Kitagawa and Kuroda (1992) among others, I have suggested a new three-way ambiguity analysis of the Japanese passive morpheme *–(r)are* together with its potential problems. In this paper, I aim to suggest that 'grammatical hierarchies' could provide us with an adequate way to solve one of the problems for the three-way ambiguity analysis (cf. Kuno 1983, 1986, Croft 2001, 20003, etc.)

In the following section, I show that Kuroda's (1965, 1979, etc.) two-way ambiguity analysis of Japanese passives should be a basis of our study of Japanese passives because of its formal and semantic plausibility and its simplicity. In section 3, however, I demonstrate that Kuroda's analysis cannot be entirely correct on the basis of Saito's (1982) and Kuno's (1983, 1986) discoveries. In section 4, I show Hoshi's (in press) new three-way ambiguity analysis of the Japanese passive morpheme *–(r)are* together with its potential problems. In section 5, I suggest that an interaction between grammatical 'soft' hierarchies, i.e. the animacy hierarchy and the definiteness hierarchy, might yield a new way to solve the problem (cf. Kuno 1983, 1986, Croft 2001, 20003, etc.) In section 6, I conclude the discussion of this paper.

2. Kuroda's (1965, 1979, etc.) Analysis of Japanese Passives

Consider first three instances of Japanese passive below:

(1) a. John-ga   Mary-ni   nagur -are -ta.
        John-Nom Mary-Dat punch-Pass-Pst
        'John was punched by Mary.'

    b. John-ga   Mary-ni   nikki-o   yom-are -ta.
        John-Nom Mary-Dat diary-Acc read-Pass-Pst
        'John was affected by Mary's reading a diary.'

    c. John-ga   akanboo-ni   nak-are -ta.
        John-Nom baby   -Dat cry -Pass-Pst
        'John was affected by a baby's crying.'

In (1a), the Japanese passive morpheme *–(r)are* is attached to the transitive verb *nagur* 'punch.' There, the patient argument of *nagur*, i.e. *John*, appears at the sentence initial position, and is marked by the Nominative Case marker *–ga*. The agent argument of the transitive verb, i.e. *Mary*, on the other hand, appears with the Dative Case marker *–ni*.

In (1b), the passive morpheme *–(r)are* is combined with the transitive verb *yom* 'read.' The agent argument of

yom, i.e. *Mary*, appears with the Dative Case marker *–ni* like the agent argument *Mary* in (1a). In (1b), however, the direct object of the transitive verb, i.e. *nikki* 'diary,' is attached by the Accusative Case marker *–o* unlike the direct object of *nagur*, i.e. *John*, in (1a). Interestingly, the subject of Japanese passive (1b), i.e. *John*, is marked by the Nominative Case marker *–ga*, and it does not seem to have any semantic relation to the transitive verb *yom*.

In (1c), the Japanese passive morpheme *–(r)are* attaches to the intransitive verb *nak* 'cry.' The subject argument of *nak*, i.e. *akanboo* 'baby,' is marked by the Dative Case marker *–ni* like *Mary* in (1a-b). As in (1b), the subject of the passive sentence in (1c), i.e. *John-ga*, does not appear to have any semantic relationship with the intransitive verb *nak*, either.

Observe that there is an obvious formal similarity among Japanese passives (1a-c). That is, the subject argument of the transitive verb *nagur* in (1a), that of the verb *yom* in (1b) and that of the intransitive verb *nak* in (1c) are all marked by the Dative Case marker *–ni*. Kuroda (1965, 1979, etc.) thus calls (1a-b) *–ni* passives in Japanese, and proposes a uniform analysis of *–ni* passives (1a-c) as follows:

(2)   a. $[_{S1}$ John$_i$-ga $[_{S2}$ Mary-ni <u>John$_i$-o</u> nagur] $[_V$ are]-ta] (for 1a)

$$\downarrow$$

deletion

b. $[_{S1}$ John-ga $[_{S2}$ Mary-ni nikki-o yom] $[_V$ are]-ta] (for 1b)

c. $[_{S1}$ John-ga $[_{S2}$ akanboo-ni nak] $[_V$ are]-ta] (for 1c)

Notice that under Kuroda's uniform analysis of Japanese *–ni* passives in (2a-c) for (1a-c), the passive morpheme *–(r)are* is considered to be a transitive verb, i.e. a two-place predicate, which takes a matrix subject and an embedded clause S_2 as its arguments. The passive verb *–(r)are* has the broad meaning of the English verb *affect*, i.e. that the event described by the embedded clause S_2 *has an influence on* the subject of the matrix clause S_1, or S_2 *brings about a change in* the subject of S_1 (Kuroda 1992, p. 5; see Kuno 1983, 1986 for an alternative proposal for the meaning of the Japanese passive morpheme *–(r)are)*.

This proposal by Kuroda thus helps us understand that the Nominative Case marked NP, *John-ga*, in (2b-c) is an external argument selected by the passive verb *–(r)are*, and it does not have any semantic relation with the embedded verbs in (2b-c). This analysis also allows us to understand that *Mary* in (1b-c) and *akanboo* 'baby' in (1c) are all subject arguments in the non-tensed embedded clause S_2, and are marked by Dative Case marker *–ni*.

Notice also that Kuroda's structure (2a) for *–ni* passive (1a) is basically the same as his structures (2b-c) for *–ni* passives in (1b-c). The only difference between (2a) on the one hand and (2b-c) on the other is that in (2a), the object of the embedded clause, i.e. *John-o*, is deleted, because the matrix subject *John-ga* is identical with the embedded object; on the other hand, there is no such identity in (2b-c), and thus, the complement object deletion is not applied to (2b-c). That is, in (2b), the matrix subject is *John-ga*, the embedded object is *nikki-o* 'diary-Acc,' and they are obviously not identical. In (2c), the matrix subject is *John-ga*, and the predicate of the embedded clause S_2 is the intransitive verb *nak* 'cry,' which does not select an internal argument. Hence, complement object deletion may not apply to either (2b) or (2c) (cf. 2a).

Given the semantic properties of *–ni* passives (1b-c), Kuroda's two-place predicate analysis of the Japanese passive morpheme *–(r)are* in (2b-c) is convincing. Furthermore, because deletion, one of the grammatical operations, is well motivated, the complement object deletion analysis of *–ni* passive (1a) given in (2a) is considered to be a null hypothesis directly derived from Kuroda's two-place predicate analysis of the Japanese passive morpheme *–(r)are* in (2b-c) (see Kuroda 1983 and Hoshi 1999, 1994a-b, 1999 for a PRO analysis of *–ni* passive (1a); see Kitagawa and Kuroda 1992 for a pro analysis of (1a)).

Importantly, Kuroda (1979, 1992, etc.) attempts to provide further support for his deletion analysis of –*ni* passive like (1a) with the following contrast:

(3) a. *Fermat-no teiri   -ga   John-ni syoomeis-are -ta.
         Fermat-Gen theorem-Nom John-Dat prove   -Pass-Pst
         'Fermat's theorem was proven by John'

     b. Fermat-no teiri   -ga   John-ni yotte syoomeis-are -ta.
        Fermat-Gen theorem-Nom John-to owing prove   -Pass-Pst
        'Fermat's theorem was proven by John.' (Kuroda 1979, pp. 330-331)

There is a sharp contrast between (3a) and (3b), two instances of Japanese passive. (3b) is fully acceptable, whereas (3a) is not. In (3a), the Japanese passive morpheme –*(r)are* is combined with the transitive verb *syoomeis* 'prove.' There, the internal argument of *syoomeis*, i.e. *Fermat-no teiri* 'Fermat's theorem,' is at the sentence initial position, and is marked by the Nominative Case marker –*ga*. The external argument of the transitive verb, i.e. *John*, is marked by the Dative marker –*ni*. Hence, (3a) is an instance of –*ni* passive which corresponds to –*ni* passive in (1a).
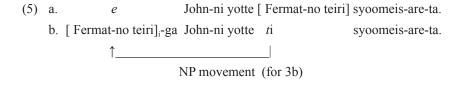
In (3b), on the other hand, the passive morpheme –*(r)are* is attached to the same two-place predicate *syoomeis*; the object argument of *syoomeis*, i.e. *Fermat-no teiri*, is at the sentence initial position, marked by the Nominative Case marker –*ga* as in –*ni* passive (3a). However, in (3b), the subject argument of *syoomeis* is attached by *ni yotte* 'due to,' not by the Dative marker –*ni* (cf. 1a & 3a). Because of this, Kuroda (1979, 1992, etc.) calls Japanese passives such as (3b) –*ni yotte* passive (cf. –*ni* passives in (1a-c) and (3a)).

Kuroda's complement object deletion analysis seems to provide a pleasing way to account for the ill-formedness of (3a), as illustrated below:

(4)   *[$_{S1}$ Fermat-no teiri$_i$-ga [$_{S2}$ John-ni Fermat-no teiri$_i$-o syoomeis] [$_V$ are]-ta]
                                          ↓
                              deletion (for 3a)

As shown in (4), under Kuroda's uniform analysis of –*ni* passives, the passive morpheme –*(r)are* is a two-place predicate, which takes an external subject argument, *Fermat's theorem*, and an internal argument S$_2$. In structure (4) for (3a), the matrix subject *Fermat-no teiri-ga* is identical with the embedded object *Fermat-no teiri-o*. Hence, the complement object is deleted. Significantly, representation (4) appears to be ruled out by Kuroda's analysis, because immutable entities such as *Fermat-no teiri* do not seem to be affected by the event described by the embedded clause S$_2$, *John's proving Fermat's theorem*, or the event described by S$_2$ does not seem to bring about a change in the matrix subject, *Fermat's theorem*.

On the other hand, to account for the well-formedness of –*ni yotte* passive (3b), Kuroda (1979, 1992, etc.) proposes that -*ni* passive (3a) and –*ni yotte* passive (3b) are formally totally different. Namely, -*ni* passive (3a) is generated by complement object deletion as seen in (2a/4); but –*ni yotte* passive (3b) is generated by means of a reordering transformation, i.e. NP movement, as illustrated below:

(5) a.   *e*   John-ni yotte [Fermat-no teiri] syoomeis-are-ta.
     b. [Fermat-no teiri]$_i$-ga John-ni yotte   *t*i   syoomeis-are-ta.
            ↑_____|
                       NP movement (for 3b)

As shown in (5a), under Kuroda's analysis, the subject position of *–ni yotte* passive is a non-theta position, *e*, where there is no semantic restriction imposed. This is because the passive morpheme *–(r)are* of Japanese *–ni yotte* passive is not a two-place predicate (cf. 2a-c & 4), but a suffix which suppresses the external argument and absorbs Case from the attached verb like the passive suffix *–en* in English (cf. Chomsky 1981, Saito 1982, etc.) As illustrated in (5b), at some point of the derivation, the internal argument of the verb *syoomeis*, i.e. *Fermat's theorem*, undergoes movement into the non-theta subject position. Because a non-theta position is a semantically vacuous position, the subject position *e* in (5b) can be successfully filled by the internal argument which is the immutable entity, *Fermat's theorem*.

In other words, Kuroda's analysis of Japanese *–ni yotte* passive parallels Chomsky's analysis of English *be* passive, *Fermat's theorem was proven by John*, as illustrated below:

(6) a.   *e*   was prove-n [Fermat's theorem] by John.
     b. [Fermat's theorem]$_i$ was prove-n   *t*$_i$ by John.

  ↑_____|
              NP movement

Namely, for Kuroda (1979, 1992, etc.), both *–ni yotte* passive in Japanese and *be* passive in English involve NP movement of an internal argument into a non-theta subject position, as shown in (5b) and (6b).

To summarize, Kuroda (1965, 1979, 1983, 1985, 1992, etc.) proposes that there are two formally different types of passive in Japanese, *–ni* passives such as (1a-c) and *–ni yotte* passive like (3b). The Japanese passive morpheme *–(r)are* of *ni* passive is a two-place predicate which takes a matrix subject and an embedded clause object (see 2a-c). The transitive verb *–(r)are* has the broad meaning of the English verb *affect*, i.e. that the event described by the embedded clause *has an influence* on the matrix subject, or the event described by the embedded clause brings about a change in the matrix subject. As illustrated in (2a-c), a complement object is optionally deleted in the case of Japanese *–ni* passives. If complement object deletion is triggered, *ni* passive such as (1a) is generated (see 2a). If not, *–ni* passives such as (1b-c) are generated (see 2b-c).

On the other hand, under Kuroda's analysis, the passive morpheme *–(r)are* of *–ni yotte* passive is not a verb, but a suffix which triggers the suppression of the external argument and the absorption of Accusative Case from the attached verb (cf. Chomsky 1981, Saito 1982, etc.) Hence, the subject position of *–ni yotte* passive is a non-theta, semantically vacuous position unlike that of *ni* passive. Probably for Case reasons, the *–ni yotte* passive involves NP movement of an internal argument into the non-theta subject position exactly in the same way as English *be* passive does (see 5b & 6b).

Given the formal and semantic plausibility together with its simplicity, it seems to me that Kuroda's two-way ambiguity analysis should be considered to be a basis of our study of Japanese passives.

3. Saito's (1982) and Kuno's (1983, 1986) Discoveries

Kuroda's two-way ambiguity analysis above appears to be plausible, and suggests that the passive morpheme *–(r)are* of *–ni* passive is a transitive verb whose meaning is the broad meaning of the English verb *affect*, and that the passive morpheme *–(r)are* of *–ni yotte* passive is a suffix to trigger 'intrantisivization,' i.e. the suppression of both the external argument and Case from the attached verb. Significantly, however, Saito (1982) discovers a piece of strong evidence that the passive morpheme *–(r)are* of *ni* passive like (1a) is not a verb, but a suffix which triggers intrantisivization contrary to Kuroda's proposal.

Consider first the following data from Kuroda (1965, 1978), Harada (1973) Shibatani (1973), etc.:

(7) a. John-ga   Mary-ni   hasir-ase   -ta.
         John-Nom Mary-Dat run -Cause-Pst
         'John made Mary run.'

     b. John-ga   Mary -o   hasir-ase   -ta.
         John-Nom Mary -Acc run -Cause-Pst
         'John made Mary run.'

(7a-b) are both acceptable instances of Japanese causative. Observe that in (7a-b), the intransitive verb *hasir* 'run' is attached by the causative morpheme *–(s)ase*. Observe further that in (7a), the causee *Mary* appears with the Dative Case marker *–ni*, and that in (7b), the cause is accompanied by the Accusative Case marker *–o*.

Consider next the causative examples in (8) also cited from Kuroda (1965, 1978), Harada (1973) Shibatani (1973), etc.

(8) a. John-ga   Mary-ni   Bill-o   nagur -ase   -ta.
         John-Nom Mary-Dat Bill-Acc punch-Cause-Pst
         'John made Mary punch Bill.'

     b. *John-ga   Mary-o   Bill-o   nagur -ase   -ta.
          John-Nom Mary-Acc Bill-Acc punch-Cause-Pst
         'John made Mary punch Bill.'

In (8a-b), not an intransitive verb, but the transitive verb *nagur* 'punch' is combined with the causative verb *–(s)ase*. As in (7a), the causee argument *Mary* is marked by the Dative marker *–ni* in (8a), and Japanese causative example (8a) is acceptable. As in (7b), the causee *Mary* in (8b) is marked by the Accusative Case maker *–o*, but (8b) results in ungrammaticality in sharp contrast with (7b). Thus, we can come up with the following generalization: in Japanese causative, a causee argument cannot be attached by the Accusative Case marker *–o*, if a transitive verb is combined with the causative morpheme *–(s)ase* (See Kuroda 1965, 1978, Harada 1973, Shibatani 1973, Saito 1982, etc. for precise analyses of the data in (7a-b) and (8a-b)).

Given this generalization, consider again an instance of Japanese passive in (9).

(9)   Mary-ga   damatte Tom-ni   nagur -are -ta.
         Mary-Nom silently   Tom-Dat punch-Pass-Pst
         'Mary was punched by Tom without saying anything.'

Here, the transitive verb *nagur* 'punch' is attached by the Japanese passive morpheme *–(r)are*, and the internal argument of *nagur, Mary*, is at the sentence initial position marked with the Nominative Case marker *–ga*. The external argument of *nagur* 'punch,' *John*, appears with the Dative Case marker *–ni*. Hence, (9) is exactly the same type of Japanese *ni* passive as the one in (1a), which is generated by complement object deletion under Kuroda's analysis (see 2a & 4).

Examine now Saito's (1982) crucial data where he embeds passive example (9) within Japanese causative construction as below:

(10) a. John-ga   Mary-ni   damatte Tom-ni nagur -are -sase -ta.
     John-Nom Mary-Dat silently Tom-by punch-Pass-Cause-Pst
     'John made/let Mary be punched by Tom without saying anything.'

    b. John-ga   Mary-o   damatte Tom-ni nagur -are -sase -ta.
     John-Nom Mary-Acc silently Tom-by punch-Pass-Cause-Pst
     'John made/let Mary be punched by Tom without saying anything.' (Saito 1982, p. 92)

In (10a), the causee argument *Mary* is attached by the Dative Case marker *–ni*, and in (10b), the causee *Mary* is marked by the Accusative Case maker *–o*. These two types of Japanese causative in (10) are both fully acceptable. Saito (1982) argues that the grammaticality of causative (10b) is significant, because given the above mentioned generalization about Japanese causative, the causee should not be able to show up with the Accusative Case marker *-o*, if a transitive verb is attached by the causative verb *–(s)ase*. Notice that in (10b), the transitive verb *nagur* 'punch' is first combined with the Japanese passive morpheme *–(r)are*, and the complex passive predicate [*nagur-are*] is then attached by the causative morpheme *–(s)ase*. The grammaticality of Japanese passive-causative example with the Accusative Case marked causee *Mary-o* in (10b) thus implies that the complex passive predicate [*nagur-are*] as a whole parallels (or functions as) intransitive verbs such as *hasir* 'run' (see 7b), but does not parallel (or function as) transitive verbs such as *nagur* 'punch' (see *8b) This then suggests that the Japanese passive morpheme *–(r)are* in (10b) may turn the transitive verb *nagur* 'punch' into a kind of intransitive verb, and Saito (1982, p. 92) argues that passive-causative example (10b) is acceptable, presumably because the Japanese passive morpheme *–(r)are* in (9/10b) is indeed a suffix and does absorb Case in the same way as the English passive morpheme *–en* (Chomsky 1981, etc.; cf. 5b & 6b).

    Recall that Kuroda (1965, 1979, 1983, 1992) generates Japanese passives such as (9) by means of complement object deletion as below:

(11)   [$_{S1}$ Mary$_i$-ga damatte [$_{S2}$ Tom-ni Mary$_i$-o nagur] [$_V$ are]-ta] (for 9; cf. 2a)
                                    ↓
                               deletion

Under Kuroda's theory of Japanese passives, however, it is not entirely clear how the matrix passive verb *–(r)are* turns the transitive verb *nagur* 'punch' into a sort of intransitive verb, or how the passive morpheme *–(r)are* absorbs Case from the transitive verb *nagur* (see Hoshi 1991, 1994a-b, 1999, etc. for attempts to solve this problem under Kuroda's deletion analysis). On Kuroda's analysis, the passive morpheme *–(r)are* of *–ni* passives is simply a verb, but is not a suffix to trigger a morphological operation like absorption of Case. Consequently, Saito's (1982) valuable data like the one in (10b) appears to constitute a potential problem for Kuroda's complement object deletion analysis of Japanese passives such as (1a), (3a) or (9).

    Here, consider again Kuroda's (1979, 1992, etc.) NP movement analysis of *–ni yotte* passive (12), given in (13a-b).

(12)   Mary-ga   damatte Tom-ni   yotte nagur -are -ta.
     Mary-Nom silently Tom-due to   punch-Pass-Pst
     'Mary was punched by Tom without saying anything.'

(13) a. *e* 　　 damatte Tom-ni yotte [Mary] nagur-are-ta.

　　 b. [Mary]$_i$-ga damatte Tom-ni yotte 　*t*i 　 nagur-are-ta.

　　　　　↑_____|

　　　　　　　　　NP movement (for 12b)

Recall that as in (13a-b), under Kuroda's two-way ambiguity analysis, the Japanese passive morpheme *–(r)are* of *–ni yotte* passive is a suffix which intransitivizes the attached transitive verb, triggering NP movement of an internal object argument into a non-theta subject position.

　　 Observe now the acceptability of the passive-causative examples in (14a-b), where *-ni yotte* passive example (12) is embedded inside Japanese causative construction (cf. 10a-b).

(14) a. John-ga　　Mary-ni damatte Tom-ni   yotte nagur -are -sase   -ta.

　　　　 John-Nom Mary-Dat silently Tom-due to　　punch-Pass-Cause-Pst

　　　　 'John made/let Mary be punched by Tom without saying anything.' (cf. 10a)

　　 b. John-ga　　Mary-o　　damatte Tom-ni   yotte nagur -are -sase   -ta.

　　　　 John-Nom Mary-Acc silently Tom-due to　　punch-Pass-Cause-Pst

　　　　 'John made/let Mary be punched by Tom without saying anything.' (cf. 10b)

As in (10a), the causee argument *Mary* is marked by the Dative Case marker *–ni* in (14a). As in (10b), the causee *Mary* is attached by the Accusative Case marker *–o* in (14b). Observe also that in (14b), the transitive verb *nagur* 'punch' is first attached by the Japanese passive morpheme *–(r)are*, and then, the complex predicate [*nagur-are*] as a whole is combined with the causative morpheme *–(s)ase*. Exactly like the grammaticality of (10b), the acceptability of (14b) thus suggests that the complex predicate [*nagur-are*] parallels (or functions as) an intransitive verb like *hasir* 'run' like the complex passive verb in (10b), because the passive morpheme of *–ni yotte* passive is a suffix to trigger intransitivization of the attached verb. This is certainly what is predicted by Kuroda's NP movement analysis of Japanese *–ni yotte* passive.

　　 Importantly, however, following the lead by Saito (1982), Kuno (1983, 1986) also discovers a piece of convincing evidence that could pose a problem for Kuroda's account. Kuno's findings are concerned with Kuroda's account for the ill-formedness of *–ni* passive (3a), repeated here as (15).

(15)　　*Fermat-no teiri-ga　　　John-ni   syoomeis-are -ta.

　　　　 Fermat-Gen theorem-Nom John-Dat prove　　-Pass-Pst

　　　　 'Fermat's theorem was proven by John' (= 3a)

　　 Remember that to account for the unacceptability of (15), Kuroda assigns the following structure:

(16)　　*[$_{S1}$ Fermat-no teiri$_i$-ga [$_{S2}$ John-ni ~~Fermat-no teiri$_i$-o~~ syoomeis] [$_V$ are]-ta]

　　　　　　　　　　　　　　　　　　↓

　　　　　　　　　　　　deletion (for 15; = 4)

Under Kuroda's uniform analysis of *–ni* passive in Japanese, the passive morpheme *–(r)are* is a two-place predicate whose meaning is the broad meaning of the English verb *affect*, i.e. that the event described by the embedded clause S$_2$ *has an influence on* the subject of the matrix clause S$_1$, or S$_2$ *brings about a change in* the subject of S$_1$. Kuroda rules out structure (16) under the assumption that the event described by the embedded clause, i.e. *John's proving*

Fermat's theorem, may not have an influence on the subject of S_1, i.e. *Fermat-no teiri* 'Fermat's theorem,' which is an immutable entity, or that the event described by the embedded clause S_2 cannot bring about a change in the matrix subject of S_1, *Fermat-no teiri*.

However, Kuroda's (1979, 1992, etc.) account for the ungrammaticality of (15) suffers a drawback from the following counterexamples discovered by Kuno's (1983, 1986) (Kuno's 1983 examples are slightly modified only for the ease of exposition here):

(17) a. Fermat-no teiri   -ga   dareka   -ni   syoomeis-are -ta   (koto)
      Fermat-Gen theorem-Nom somebody-Dat prove   -Pass-Pst (fact)
      '(the fact that) Fermat's theorem was proven by somebody.'

    b. Fermat-no teiri   -ga   dare   -ni -mo syoomeis-are -te i -nai (koto)
      Fermat-Gen theorem-Nom anybody-Dat-   prove   -Pass-   -Not (fact)
      '(the fact that) Fermat's theorem has not been proven by anybody.'

    c. Fermat-no teiri   -ga   osokarehayakare dareka   -ni   syoomeis-are -ru   (koto)
      Fermat-Gen theorem-Nom sooner or later   somebody-Dat prove   -Pass-Pres (fact)
      '(the fact that) sooner or later, Fermat's theorem will be proven by somebody' (Kuno 1983, p. 198)

As Kuno (1983, 1986) observes, (17a-c) are all acceptable in contrast with (15). Notice here that in all the examples in (17), the internal argument of the predicate *syoomeis* 'prove,' i.e. *Fermat-no teiri* 'Fermat's theorem,' is at the sentence initial position marked with the Nominative Case marker *–ga*. The external argument of the predicate, on the other hand, is marked by the Dative marker *–ni*, i.e. *dareka-ni* 'by somebody' in (17a) and (17c) and *dare-ni-mo* 'by anybody' in (17b). Hence, (17a-c) are the exactly the same type of *ni* passive as the *ni* passive in (15). However, (17a-c) are fully acceptable, while (15) is certainly not.

Kuroda's optional complement object deletion analysis of *ni* passives necessarily assigns deletion structures (18a-c) to sentences (17a-c), respectively (cf. 16).

(18) a. *[$_{S1}$ Fermat-no teiri$_i$-ga [$_{S2}$ dareka-ni Fermat-no teiri$_i$-o syoomeis] [$_V$ are]-ta]
                                        ↓
                           deletion (for 17a)

    b. *[$_{S1}$ Fermat-no teiri$_i$-ga [$_{S2}$ dare-ni-mo Fermat-no teiri$_i$-o syoomeis] [$_V$ are]-te i-nai]
                                        ↓
                           deletion (for 17b)

    c. *[$_{S1}$ Fermat-no teiri$_i$-ga [$_{S2}$ osokarehayakere dareka-ni-mo Fermat-no teiri$_i$-o syoomeis] [$_V$ are]-te i-nai]
                                        ↓
                           deletion (for 17c)

In all the representations in (18), the immutable entity, i.e. *Fermat-no teiri*, is placed in the matrix subject position as in (16), and thus, on Kuroda's analysis, (18a-c) are all predicted to be semantically anomalous exactly like (15). However, this is not the case, and it is not entirely clear if Kuroda's deletion analysis of *ni* passives can distinguish acceptable examples (17a-c) from unacceptable one (15) in an adequate manner. The contrast between (15) and (17a-c) thus implies that Kuroda's account for the ill-formedness of (15) given in (16) might not be on the right track.

4. Hoshi's (in press) Three-way Ambiguity Analysis of Japanese Passives

Notice that although Kuroda's two-ambiguity analysis of Japanese passives is not free from a shortcoming, it seems problematic only with respect to the treatment of *ni* passive like the one in (1a) which contains a gap (cf. 2a, 3a, 4, 9, 10b, 11, 15, 16, 17a-c, 18a-c). In Hoshi (in press), I have thus implied the following three-way ambiguity analysis of the Japanese passive morpheme –*(r)are* by minimally revising Kuroda's analysis based on Saito's (1982) invaluable discoveries.

To illustrate, under the new three-way ambiguity analysis of the Japanese passive morpheme, the first type of –*(r)are* is a two-place predicate proposed by Kuroda (1965, 1979, 1992, etc.) The meaning of this kind of –*(r)are* is the broad meaning of the English verb *affect* (Kuroda 1992, p. 5; cf. Kuno 1983, 1986). This sort of *(r)are* is the one that Kuroda (1965) proposes for –*ni* passives, and we can assign Kuroda's structures (2a-c) to –*ni* passives (1a-c). Representations (2a-c) are repeated here as (19a-c) below:

(19) a. [$_{S1}$ John$_i$-ga [$_{S2}$ Mary-ni <u>John$_i$-o</u> nagur] [$_V$ are]-ta] (for 1a; = 2a)

$$\downarrow$$

deletion

b. [$_{S1}$ John-ga [$_{S2}$ Mary-ni nikki-o yom] [$_V$ are]-ta] (for 1b; = 2b)

c. [$_{S1}$ John-ga [$_{S2}$ akanboo-ni nak] [$_V$ are]-ta] (for 1c; = 2c)

Hence, given this type of –*(r)are*, we can account for the semantic properties of –*ni* passive (1b) and (1c), following Kuroda (see 19b-c). Furthermore, we can account for one of the syntactic properties among –*ni* passives (1a-c), i.e. that the subject argument of *nagur*, that of *yom* and that of *nak* are all uniformly marked by the Dative Case marker –*ni* (see 19a-c), under the assumption that the subject argument of a non-tensed embedded clause in Japanese is attached by the Dative marker –*ni*. As Kuroda proposes, if complement object deletion takes place in *ni* passives, we can generate structures such as (19a). On the other hand, if complement object deletion is not triggered, we can derive structures such as (19b-c).

Under the three-way ambiguity analysis, the second type of the Japanese passive morpheme -*(r)are* is not a verb, but a suffix which suppresses the external argument and absorbs Case from the attached verb (Saito 1982, etc.) (see 10b). The external argument suppressed by this type of –*(r)are* shows up with the Dative marker –*ni* 'by.' Hence, -*ni* passive (1a) may be assigned as well the following derivation, which is first proposed by Saito (1982):

(20) a.   *e*   Mary-ni   John   nagur-are-ta.
    b. John-ga   Mary-ni   *t*   nagur-are-ta.
        ↑_____|
          NP movement (for 1a)

Importantly, under the proposed three-way ambiguity analysis of the Japanese passive morpheme –*(r)are*, –*ni* passive such as (1a) is thus structurally two-way ambiguous. More precisely, –*ni* passive like (1a) has either Kuroda's complement object deletion structure as in (19a) or Saito's NP movement structure as in (20b). To put it differently, the passive morpheme –*(r)are* of –*ni* passive (1a) is ambiguous between a transitive verb as in (19a) and a 'intransitivizing' suffix as in (20a-b). Hence, the –*ni* passive-causative construction together with the Accusative Case marked causee *Mary-o* in (10b) is not a problem for the three-way ambiguity analysis of the Japanese passive morpheme –*(r)are*. This is so, because on the analysis illustrated here, the –*ni* passive morpheme –*(r)are* could be a suffix which 'intransitivizes' the attached transitive verb *nagur* 'hit' in (10b), as desired.

The last type of *–(r)are* under the three-way ambiguity analysis of Japanese passives is a suffix which suppresses the external argument and absorbs Case from the attached verb. As Kuroda (1979, 1992, etc.) proposes, the external argument suppressed by the third type of *–(r)are* necessarily shows up with *–ni yotte* 'due to,' and I adopt Kuroda's derivation for *–ni yotte* passive (3b) given in (5a-b). (5a) and (5b) are repeated below as (21a) and (21b), respectively:

(21) a. *e*   John-ni yotte [Fermat-no teiri] syoomeis-are-ta.
b. [Fermat-no teiri]$_i$-ga John-ni yotte t_i syoomeis-are-ta.
   ↑_____|
       NP movement (for 3b; = 5a-b)

5. Japanese Passives and Grammatical Hierarchies (Kuno 1983, 1986, Croft 2001, 2003, etc.)

However, Kuroda's contrast between *–ni* passive (3a) and *–ni yotte* passive (3b) together with Kuno's distinction between *–ni* passive (3a) and *–ni* passive (17a) still remains a problem for the three-way ambiguity analysis of the Japanese passive morpheme *–(r)are* illustrated in the preceding section. (3a-b) and (17a) are repeated below as (22a-b) and (23), respectively.

(22) a. *[Fermat-no teiri]$_i$ -ga John-ni *e*$_i$ syoomeis-are -ta. (= 3a, 15)
   Fermat-Gen theorem-Nom John-Dat prove -Pass-Pst
   'Fermat's theorem was proven by John'

 b. [Fermat-no teiri]$_i$ -ga John-ni yotte *e*$_i$ syoomeis-are -ta. (= 3b)
   Fermat-Gen theorem-Nom John-to owing prove -Pass-Pst
   'Fermat's theorem was proven by John.' (Kuroda 1979, pp. 330-331)

(23) [Fermat-no teiri]$_i$ -ga dareka -ni *e*$_i$ syoomeis-are -ta (koto)
   Fermat-Gen theorem-Nom somebody-Dat prove -Pass-Pst (fact)
   '(the fact that) Fermat's theorem was proven by somebody.' (= 17a) (Kuno 1983, p. 198)

(22b) is an instance of Japanese *–ni yotte* passive. (22a) and (23), on the other hand, are instances of *–ni* passive which contain a gap *e*.

Under the three-way ambiguity analysis of Japanese passives, *–ni* passive (22a) and (23) are structurally two-way ambiguous. Hence, (22a) can be assigned Kuroda's complement object deletion structure like the one below:

(24) *[$_{S1}$ Fermat-no teiri$_i$-ga [$_{S2}$ John-ni <u>F̶e̶r̶m̶a̶t̶-̶n̶o̶ ̶t̶e̶i̶r̶i̶$_i$-̶o̶</u> syoomeis] [$_V$ are]-ta]
              ↓
         deletion (for 22a; = 4, 16)

As Kuroda (1979, 1992, etc.) argues, structure (24) is ruled out because the immutable entity like [*Fermat-no teiri*] cannot satisfy the selectional restriction imposed by the matrix two-place predicate [$_V$ *rare*].

Under the suggested three-way ambiguity analysis of Japanese passives, however, there is another possibility, i.e. that *–ni* passive (22a) is assigned the NP movement structure (25b) that Saito (1982) proposes.

(25) a.   *e*   John-ni [Fermat-no teiri] syoomeis-are-ta.
    b. [Fermat-no teiri]$_i$-ga John-ni t_i syoomeis-are-ta.
       ↑_____|
              NP movement (for 22a)

If so, it turns out that there is no formal difference between the derivation for *–ni* passive (22a) in (25a-b) and that for *–ni yotte* passive (22b). The NP movement derivation for (22b) is given in (26a-b).

(26) a.   *e*   John-ni yotte [Fermat-no teiri] syoomeis-are-ta.
    b. [Fermat-no teiri]$_i$-ga John-ni yotte t_i syoomeis-are-ta.
       ↑_____|
              NP movement (for 3b & 22b; = 5a-b & 21a-b)

A question thus arises as to what distinguishes the ill-formed derivation (25a-b) from the well-formed derivation (26a-b), i.e. how we can reject (25a-b) and rule in (26a-b).

Furthermore, given the NP movement computation for *–ni* passive (23) given in (27a-b),

(27) a.   *e*   dareka-ni [Fermat-no teiri] syoomeis-are-ta.
    b. [Fermat-no teiri]$_i$-ga dareka-ni t_i syoomeis-are-ta.
       ↑_____|
            NP movement (for 23)

there also arises a question as to what rules out derivation (25a-b) and rules in derivation (27a-b).

To account for the contrast between (22a) and (22b), and the difference between (22a) and (23), Kuno (1986, p. 79) in fact suggests a 'functional-syntactic' analysis which relies on the following grammatical hierarchy, i.e. the animacy hierarchy:

(28)   human > animate > ianimate (Kuno 1986, p. 79; cf. Croft 2001, 2003, etc.)

More specifically, Kuno proposes that i) animacy hierarchy (28) is relevant to *–ni* passives but is not relevant to *–ni yotte* passives in Japanese; ii) in *–ni* passive (22a), the subject, *Fermat-no teiri* 'Fermat's theorem,' is an inaminate NP, whereas *John* inside the passive *–ni* phrase, i.e. the *by* phrase, is a human NP. Consequently, (22a) violates the animacy hierarchy in (28), and results in ungrammaticality; (iii) the animacy hierarchy in (28) is irrelevant to *–ni yotte* passive under Kuno's analysis. Hence, there is nothing wrong with (22b), and thus, examples such as (22b) are acceptable; (iv) *–ni* passives such as (23), on the other hand, are acceptable, because indefinite NPs such as *dareka* 'somebody' do not count as a human NP like *John*.

Kuno's functional account for (22a-b) and (23) is certainly a very interesting one. Significantly, however, it is not clear why indefinite NPs such as *dareka* 'somebody' do not count as a human NP, i.e. are immune from animacy hierarchy (28). Moreover, there is some evidence which suggests that the animacy hierarchy is relevant not only to *–ni* passives but also to *–ni yotte* passives in Japanese. Consider the following contrast:

(29) a. niwa -de -wa John-ga   ka   -ni sas -are -ta.
      garden-in -Top John-Nom mosquito-Dat bite-Pass-Pst
      'John was bitten by mosquitoes in the garden.'

   b. *niwa -de-wa John-ga   ka   -ni yotte sas -are -ta.
      garden-in -Top John-Nom mosquito-to due bite-Pass-Pst
      'John was bitten by mosquitoes in the garden.'

In both –*ni* passive (29a) and –*ni yotte* passive (29b), the animate NP *John* is in the subject position marked by the Nominative Case marker –*ga*, and the inanimate NP *ka* 'mosquito' is inside the passive *by* phrase. Notice that Kuroda's contrast between –*ni* passive (22a) and –*ni yotte* passive (22b) is reversed in (29a-b). Namely, in (22a-b), *ni* passive is unacceptable, while –*ni yotte* passive is acceptable; on the other hand, in (29a-b), *ni* passive is acceptable, whereas –*ni yotte* passive is not acceptable.

   Given this consideration, here, I wish to suggest tentatively that i) grammatical hierarchies such as the animacy hierarchy are relevant not only to –*ni* passives but also to –*ni yotte* passives in Japanese; but ii) such grammatical hierarchies are relevant to them in a different manner as follows:

Japanese –ni passive

(30) a. *animacy hierarchy*:   human > animate > inamimate
     b. *definiteness hierarchy*:   definite ≥ specific ≥ nonspecific
                                                 (cf. Croft 2001, p. 130, p. 132)

Japanese –ni yotte passive

(31)   *reversed animacy hierarchy*:   inamimate > animate > human
                                                 (cf. Croft 2001, p. 130, p. 132)

According to Croft (2001, p. 132), '[D]efinite referents (i.e. those whose identity is known to both speaker and hearer) outrank specific indefinite referents (a specific instance or token whose identity is unknown to the hearer and possibly also the speaker), which in turn outrank nonspecific referents (those identifiable only as a type, not as a specific instance or token).'

   In addition, I wish to suggest here that iii) because grammatical hierarchy like the animacy hierarchy in (30a) is a 'soft' constraint in that a violation of animacy hierarchy (30a) can be cancelled by positively meeting or observing the definiteness hierarchy in (30b) (cf. Optimality Theory). To illustrate this, let us consider ill-formed –*ni* passive (22a) repeated here as (32):

(32)   *[Fermat-no teiri]$_i$ -ga   John-ni e_i syoomeis-are -ta. (= 3a, 15, 22a)
         Fermat-Gen theorem-Nom John-Dat   prove   -Pass-Pst
         'Fermat's theorem was proven by John'   (Kuroda 1979, pp. 330-331)

Because (32) is an instance of –*ni* passive, the grammatical hierarchies in (30a) and (30b) are relevant to (32). In (32), the Nominative Case-marked subject *Fermat-no teiri* 'Fermat's theorem' is an inanimate NP, and *John* within the passive –*ni* phrase, i.e. the passive *by* phrase, is a human NP. Hence, (32) is clearly in violation of the animacy hierarchy in (30a). Observe, on the other hand, that *Fermat-no teiri* in the subject position and *John* within the passive *by* phrase are both definite NPs, and that (32) does not positively observe the definiteness hierarchy in (30b). Hence, the violation of animacy hierarchy (30a) cannot be cancelled, and –*ni* passive (32) turns out to be unacceptable, as Kuroda first observes.

   Let us now examine the well-formed –*ni yotte* passive example in (22b) discovered by Kuroda (1979, 1992, etc.). (22b) is repeated here as (33) below:

33)　　　[Fermat-no teiri]$_i$ -ga　　John-ni yotte e_i syoomeis-are -ta. (= 3b, 22b)
　　　　　Fermat-Gen theorem-Nom John-to owing　　prove　　-Pass-Pst
　　　　　'Fermat's theorem was proven by John.'　(Kuroda 1979, pp. 330-331)

(33) is an example of –*ni yotte* passive in Japanese and thus, only the grammatical hierarchy in (31), i.e. the reversed animacy hierarchy, is relevant to (33).　In (33), the Nominative Case-marked NP *Fermat-no teiri* in the subject position is an inanimate NP, whereas *John* within the passive –*ni yotte* phrase, i.e. the passive *by* phrase, is an animate NP.　(33) thus meets the 'reversed' animacy hierarchy in (31a).　(33) therefore results in grammaticality, as desired.
　　　Examine next Kuno's (1983, 1986) example in (23), repeated here as (34).

(34)　　　[Fermat-no teiri]$_i$ -ga　　dareka　　-ni e_i syoomeis-are -ta (koto)
　　　　　Fermat-Gen theorem-Nom somebody-Dat　　prove　　-Pass-Pst (fact)
　　　　　'(the fact that) Fermat's theorem was proven by somebody.' (= 17a, 23)
　　　　　　　　　　　　　　　　　　　　　　　　　　　(Kuno 1983, p. 198)

(34) is an instance of Japanese –*ni* passive, and thus, the grammatical hierarchies in (30a-b) are relevant.　In (34), the –*ga* marked NP, *Fermat-no teiri*, in the subject position is an inanimate NP; and *dareka* 'somebody' within the passive –*ni* 'by' phrase is a human NP.　Hence, like (32), –*ni* passive (34) clearly violates the animacy hierarchy in (30a).　Notice, however, that in (34), the subject NP, *Fermat-no teiri*, is a definite NP, whereas *dareka* inside the passive *by* phrase is nonspecific.　Hence, (34) positively meets the definiteness hierarchy in (30b), and thus, the violation of the animacy hierarcy in (30a) is successfully cancelled, as desired.
　　　Let us examine next example (29a), repeated here as (35).

(35)　　　niwa -de -wa John-ga　　ka　　　-ni　sas -are -ta. (=29a)
　　　　　garden-in -Top　John -Nom mosquito-Dat bite-Pass-Pst
　　　　　'John was bitten by mosquitoes in the garden.'

(35) is an instance of –*ni* passive in Japansese, and thus, the grammatical hierarchies in (30a-b) apply to (35).　The Nominative Case-marked NP, *John*, in (35) is a human NP, and the NP inside the passive *ni* 'by' phrase, i.e. *ka* 'mosquito,' is an inaminate NP.　Hence, –*ni* passive (35) does observe animacy hierarchy (30a).　Furthermore, in (35), *John* is a definite NP, and *ka* is nonspecific.　Consequently, *ni* passive (35) positively observes the definiteness hierarchy in (30b) as well.　Therefore, under the tentative analysis suggested in this paper, –*ni* passive (35) is successfully ruled in.
　　　Examine finally the nature of example (29b), repeated here as (36).

(36)　　　*niwa -de -wa John-ga　　ka　　　-ni yotte sas-are -ta.
　　　　　 garden-in -Top John-Nom mosquito-to due bite -Pass-Pst
　　　　　'John was bitten by mosquitoes in the garden.'

(36) is an instance of Japanese –*ni yotte* passive.　Hence, only the grammatical hierarchy in (31), i.e. the reversed animacy hierarchy, is relevant to (36).　Notice that in (36), the Nominative Case-marked NP, *John*, is an animate NP, while the NP inside the passive *ni* 'by' phrase is *ka* 'mosquito,' which is inaminate.　(36), an instance of –*ni yotte* passive, is thus clearly in violation of the reversed animacy hierarchy in (31), and we can correctly rule it out under the tentative analysis suggested in this section.

6. Conclusion

In this paper, I have attempted to clarify Hoshi's (in press) new three-way ambiguity analysis of the Japanese passive morpheme *–(r)are*. I have also tried to suggest tentatively a possibility that one of the problems for the three-way ambiguity analysis could be solved by adopting 'grammatical hierarchies' as 'soft' constraints (cf. Kuno 1983, 1986, Croft 2001, 2003; cf. Optimality Theory). I leave for my future research a question as to if indeed, the tentatively suggested solution could explain a much wider range of data, and if we could develop further the solution presented in the preceding section under such theories as the semantic map model, where grammatical hierarchies play significant roles to explain the nature of various constructions in numerous languages of the world (Croft 2001, 2003, etc.; cf. Kuno 1983, 1986).

References

Bedell, G., E. Kobayashi and M. Muraki (1979) *Explorations in Linguistics: Papers in Honor of Kazuko Inoue*, Kenkyusha.

Chomsky, N. (1981) *Lectures on Government and Binding*, Foris.

Croft, W. (2001) *Radical Construction Grammar: Syntactic Theory in Typological Perspective*, Oxford University Press.

Croft, W. (2003) *Typology and Universals*, second edition, Cambridge University Press.

Harada. S.-I. (1973) 'Counter Equi NP Deletion,' *Annual Bulletin*, Research Institute of Logopedics and Phoniatrics, University of Tokyo, **8**, 133-143.

Hinds, J. and I. Howard (1978) *Problems in Japanese Syntax and Semantics*, Kaitakusha.

Hoshi, H. (1991) 'The Generalized Projection Principle and its Implications for Passive Constructions,' *Journal of Japanese Linguistics*, 13, 53-89.

Hoshi, H. (1994a) 'Theta Role Assignment, Passivization and Excorporation,' *Journal of East Asian Linguistics*, 3, 147-78.

Hoshi, H. (1994b) *Passive, Causative and Light Verbs: A Study on Theta Role Assignment*, PhD dissertation, University of Connecticut.

Hoshi, H. (1999) 'Passives,' in Tsujimura, N. (1999).

Hoshi, H. (in press) 'A Three-way Ambiguity Analysis of Japanese Passives,' *Memoirs of Faculty of Education and Human Studies*, 72, Akita University.

Inoue, K. (1976) *Henkei Bunpoo to Nihongo*, Taishukan.

Kitagawa, Y. and S.-Y. Kuroda (1992) 'Passives in Japanese,' ms., University of Rochester and University of California, San Diego.

Kuno, S. (1973) *The Structure of the Japanese Language*, MIT Press.

Kuno, S. (1983) *Shin-nihon Bunpo*, Taishukan.

Kuno, S. (1986) 'Ukemi-bun no imi,' *Nihongogaku* **5**(2), 70-87.

Kuroda, S.-Y. (1965) *Generative Grammatical Studies in the Japanese Language*, MIT dissertation, MIT. Reprinted, Garland Press, 1979.

Kuroda, S.-Y. (1978) Case-Marking, Canonical Sentence Patterns and Counter Equi in Japanese,' in Hinds and Howard (1978), pp. 30-51. Reprinted in Kuroda (1992).

Kuroda, S.-Y. (1979) 'On Japanese Passives,' in Bedell, Kobayashi and Muraki (1979), pp. 305-347. Reprented in Kuroda (1992).

Kuroda, S.-Y. (1983) 'What can Japanese Say about Government and Binding,' WCCFL 2, Stanford Linguistic Association, pp. 153-164. Reprinted in Kuroda (1992).

Kuroda, S.-Y. (1985) 'Ukemi ni tsuite no Kuno setsu o kaishaku suru,' *Nihongogaku* **4**(10), 69-76.

Saito, M. (1982) 'Case Marking in Japanese: A Preliminary Study,' ms., MIT.

Shibatani, M. (1973) 'Semantics of Japanese Causativization,' *Foundations of Language* **9**, 327-373.

Tsujimura, N. (1999) *The Handbook of Japanese Linguistics*, Blackwell Publishers.