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Derived Environment Effect in the Case Marking System: A Case of the Mitsukaido Dialect of Japanese

Derived Environment Effect in the Case Marking System: A Case of the Mitsukaido Dialect of Japanese *

Kan SASAKI

格標示における派生環境効果：水海道方言の場合

佐々木　冠

Abstract：In the Mitsukaido dialect of Japanese, case-frames without nominative elements are permitted in the active and potential constructions. However, in passive constructions, nominative elements are obligatory. This situation can be regarded as an instance of the derived environment effect in case marking. This paper argues that this derived environment effect is a result of avoiding multiple marked case-role mappings.

キーワード：Derived Environment Effect, Oblique Subject, Passive, Local Conjunction

1. Introduction

According to Nakamura's (1999) typology of case systems, accusative languages are classified into two classes, one requiring nominative obligatorily and the other where the nominative requirement is not obligatory. In the latter case, constructions without nominative are grammatical. Icelandic is a language of this type, where both active and passive permit case-frames without a nominative. On the other hand, in the languages requiring nominative obligatorily, such as Standard Japanese (henceforth, SJ), constructions without a nominative are ungrammatical in either active or passive.

The strength of the constraint requiring the presence of a nominative marked nominal in a sentence varies among languages. The classification of languages in terms of the requirement of the presence of the nominative contains a third type of language, i.e., the type where the nominative requirement is active only in certain constructions. In the Mitsukaido dialect of Japanese (henceforth, MD), spoken in the southwestern part of Ibaraki prefecture, the nominative requirement depends on construction types.

The examples from (1) to (3) illustrate that this dialect permits case-frames without nominative elements in active and potential constructions, but in passive constructions,

nominative elements are required obligatorily.[1]

(1) Active without nominative
    are-nganja ome-godo wagaN-me.
    3SG-EXP.TOP 2SG-ACC understand-may not
    'S/he may not understand you.'
(2) Potential without nominative
   a. *are-nganja hadarag-e-ru.*
     3SG-EXP.TOP work-POT-PRES
     'S/he can work.'
   b. *ome-nganja jane-sa nobor-e-Q-ka?*
     2SG-EXP.TOP roof-DAT climb-POT-PRES-Q
     'Can you get on the roof?'
(3) Passive, nominative is obligatory
   a. *mango   ore-nge neNgazjo: oguQ-ta.*
     grandchild-NOM 1SG-DAT New year card-ACC send-PAST
     'My grandchild sent me a New Year card.'
   b. *ora   mango-ni   neNgazjo: ogur-are-da.*
     1SG.TOP grandchild-LOC New year card-ACC send-PASS-PAST
     'I was sent a New Year card by my grandchild.'

Nominative is generally assumed to be an unmarked case in accusative systems (Dixon 1979; Tsunoda 1981). In MD, the unmarked case, nominative, is obligatory only in certain derived constructions. The nominative requirement in SJ, MD and Icelandic can be schematized as in Table 1.

Table 1. *Nominative requirement in three types of languages*

	SJ	MD	Icelandic
Active (underived)	Yes	No	No
Passive (derived)	Yes	Yes	No

The partial nominative requirement in MD can be regarded as parallel to the derived environment effect (Kiparsky 1973) in phonology because the unmarked structure is required only in a certain derived environment.

  The aim of this presentation is to provide a Role and Reference Grammar (RRG) analysis for the derived environment effects of case marking in MD. Previous RRG analyses advocated for quirky case constructions (Van Valin 1991) and case typology (Nakamura 1999) cannot capture this partial requirement of nominative elements. I will argue that the Local Conjunction of two general constraints on argument mapping enables us to provide an account for the derived environment effect in MD.

  The structure of the paper is as follows. Section 2 presents a brief sketch of the relevant aspects of MD. The problem to be solved is clarified in Section 3. In Section 4, I will discuss the

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[1] I will use the following abbreviations in this paper: ACC = accusative, COMP = complementizer, DAT = dative, EXP = experiencer case, FUT = future, GEN = genitive, INST = instrumental, LOC = locative, NEG = negation, NOM = nominative, PASS = passive, PL = plural, POSS = possessive, POT = potential, PRES = present, PROG = progressive, Q = question, SG = singular, TOP = topic.

advantages and disadvantages of the previous RRG accounts applying them to MD data. I will propose a solution with optimality theoretic enhancement of RRG account in Section 5.

2. Brief Sketch of MD Case System and Relevant Fact

The area where this dialect is spoken is the southwestern part of Ibaraki prefecture, only fifty kilometers away from Tokyo. However, the case system of this dialect is quite different from SJ. This dialect has an elaborate case system using a variety of particles where SJ makes use of single particle. See Table 2.

Table 2. *Case system in the Mitsukaido Dialect and in Standard Japanese*

	Mitsukaido dialect		Standard Japanese	
	Animate NP	Inanimate NP		
Nominative	NP-*Ø*		NP-*ga*	Nominative
Accusative	NP-*godo*	NP-*Ø*	NP-*o*	Accusative
Experiencer case	NP-*ngani*		NP-*ni*	Dative
Dative	NP-*nge*	NP-*sa, e*		
Locative	NP-*ni*			
Ablative	NP-*gara*		NP-*kara*	Ablative
Instrumental	NP-*de*		NP-*de*	Instrumental
Comitative	NP-*do*		NP-*to*	Comitative
Genitive	NP-*no*		NP-*no*	Genitive
Possessive	NP-*nga*			
Adnominal locative		NP-*na*		

The MD distinguishes among animate and inanimate goals, oblique subject and oblique agent in passive. The animate goals are case marked with the animate dative case particle -*nge* and the inanimate goals with the inanimate dative case particle -*sa*, as illustrated in (4) and (5) respectively.

(4)　　*ora　　mango{-nge/*-ngani}　　kotske:　　　　jaQ-ta.*
　　　　1SG-TOP　grandchild{-DAT/*-EXP}　　pocket money-ACC　give-PAST
　　　　'I gave some pocket money to my grandchild.'
(5)　　*are　　sengare-godo　　daengagu-sa　　ere-da.*
　　　　3SG-NOM　son-ACC　　　　university-DAT　　enter-PAST
　　　　'S/he made her/his son go to the university.'

Oblique subjects in stative constructions are case marked with the case particle specific for experiencer arguments, namely experiencer case particle -*ngani*, as shown in (6).

(6)　　*ore-nganja　　e:ngo　　wagaN-ne.*
　　　　1SG-EXP:TOP　　English　understand-NEG
　　　　'I cannot understand English.'

The example (7) illustrates that the agent in passive is case marked with locative.

(7)   *ano kodomo*   *sense:-ni*   *igim-are-da.*
          that child-NOM   teacher-LOC   scold-PASS-PAST
          'That child was scolded by the teacher.'

    The size of this paper does not allow a full account of the oblique case particles in MD. In this section, I would like to concentrate on the quirky case frames. The following subsections reveal that the oblique subjects are permitted in active and potential constructions while they are not permitted in passives.

2.1. Morphologically Underived Active Constructions

Concerning the case frame of underived active constructions, two points should be mentioned. There is a class of 1 place and 2 place predicates that select no nominative element, exemplified in (8) and (9), respectively. In this respect, this dialect differs from SJ where nominative elements are required irrespective of valency. Oblique subject constructions are not found with 3 place predicates. The 3 place predicates in MD always take nominative subject as exemplified in (10).

(8)   Active: 1 place predicates
         a. canonical case frame (nom)
            are   *hadarae-de-ru.*
            3SG-NOM   work-PROG-PRES
            'S/he is working.'
         b. quirky subject construction
            ore-ngani-mo   *komaN-be-na.* (from 'Tsuchi')
            1SG-EXP-too   be embarrased-FUT-particle
            'I will be embarrassed, too.'
(9)   Active: 2 place predicates
         a. canonical case frame (nom-acc)
            ano jaro   *ore-godo*   *buQkurasj-ta.*
            that guy-NOM   1SG-ACC   beat-PAST
            'That guy beat me.'
         b. quirky subject construction
            are-nganja   *ome-godo*   *wagaN-me.*
            3SG-EXP.TOP   2SG-ACC   understand-may not
            'S/he may not understand you.'
(10)   Active: 3 place predicates
         a. canonical case frame (nom-dat-acc)
            mango   *ora-nge*   *neNgazjo:*   *oguQ-ta.*
            grandchild-NOM   1SG-DAT   New year card-ACC   send-PAST
            'My grandchild sent me a New Year card.'
         b. quirky subject construction, no

The second point to be noted is that the dative alternation or 3-to-2 advancement is generally ruled out in this dialect. That is, in this dialect, non-macrorole arguments are case marked with oblique cases in active constructions.[2] This property will be important later, in connection with

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[2] There is a fixed expression that can be regarded as an instance of 3-to-2 advancement, illustrated in the

the passive.

The transitive subject in this dialect shows syntactic properties listed in (11).

(11)   Syntactic properties of transitive subject:
        Antecedent of reflexive pronouns, controller of missing subject in adverbial clause, correspondent to locative nominal in passive sentence, correspondent to cause in causative sentence, correspondent to dative expectee in *V-te mora*: construction, etc. For details of syntactic traits of subject prototype in MD see Sasaki (2001).

The experiencer case marked nominals share some of the properties listed in (11), as illustrated in the data given in (12). This list is not a complete one. For a fuller comparison of subject prototype and experiencer case marked nominal, see Sasaki (2001).

(12)   Subject properties of experiencer case marked nominals (partial):
        a. Antecedent of reflexive pronoun
           are$_i$-nganja   zibuN$_i$-no megada   wagaN-me.
           3SG-EXP.TOP   self-GEN   weight-ACC   understand-may not
           'S/he may not know her/his weight.'
        b. Controller of missing subject in nangara adverbial clause
           are$_i$-nganja   [e$_i$ ame   name-nangara]   ojong-e-ru.
           3SG-EXP.TOP   candy-ACC   lick-while   swim-POT-PRES
           'S/he can lick a candy while swimming.'

The experiencer case marked nominal and subject prototype are not completely the same in their syntactic behaviors. The experiencer case marked nominals cannot be modified by floating quantifiers. See the example (13).

(13)   **ano gakse:ra$_i$-nganja   saNniN$_i$ gaekogungo   wagar-u.*
        that students-EXP.TOP   3 persons   foreign language-ACC   understand-PRES

This property is also found in other oblique elements (see Sasaki 2001 for the detailed description of the syntactic behavior of MD oblique elements). The experiencer case marked nominals share some properties with the subject prototype. They also share some properties with oblique elements. Taking into account this behavior, we may conclude that the experiencer case marked nominals behave as oblique subjects.

2.2. The Passive Constructions

The passive subject is case-marked with the nominative irrespective of whether it corresponds to

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examples (i) and (ii). However, this type of construction is limited to this expression and has no productivity.
(i)   *warra-nge   mizime   mise-te: kota:* (from 'Tsuchi')
        2PL-DAT   misery-ACC show-want   COMP.TOP
        '... that (I) want you to feel miserable'
(ii)   *uhe:-godo   mizime   mise-teN-no-ga* (from 'Tsuchi')
        Uhei-ACC   misery-ACC   show-PROG.PRES-COMP
        '... that (he) is making Uhei feel miserable'

the accusative or to the dative in the active construction. See examples in (14)-(16). In (14), the nominative subject in the passive constructions corresponds to the accusative object in the active constructions. The examples in (15) and (16) illustrate the dative-nominative correspondence between active and passive constructions. The pair (15a-b) is an example of the correspondence between an animate dative complement and a nominative subject. The pair (16a-b) is an example of the correspondence between an inanimate dative complement and a nominative subject.

(14)   Acc → Nom
         a. *seNse: gakse:-godo   igiN-da.*
            teacher-NOM   student-ACC   scold-PAST
            'The teacher scolded the student.'
         b. *gakse: seNse:-ni   igim-are-da.*
            student-NOM teacher-LOC   scold-PASS-PAST
            'The student was scolded by the teacher.'
(15)   Dat → Nom
         a. *sengare   ore-nge   so:daN sj-ta.*
            son-NOM   1SG-DAT   consult-PAST
            'My son consulted me.'
         b. *ora   sengare-ni   so:daN s-are-da.*
            1SG.TOP   son-LOC   consult-PASS-PAST
            'I was consulted by my son.'
(16)   Dat → Nom
         a. *ano enu   ore-nga   suneQporo-sa   kuQtsue-da.*
            that dog-NOM   1SG-POSS   leg-DAT   bite-PAST
            'That dog bit my leg.'
         b. *ore-nga   suneQporo   ano enu-ni   kuQtsug-are-da.*
            1SG-POSS   leg-NOM   that dog-LOC   bite-PASS-PAST
            'My leg was bitten by that dog.'

Dative arguments do not preserve their obliqueness when they promote to subject position in the passive and they are marked with nominative, not dative or other oblique cases. As mentioned before, in active constructions, the non-macrorole argument is case marked with an oblique case not with a direct case. However, in the passive, the promoted non-macrorole argument is case marked with the nominative. In this respect, this dialect is different from languages such as Icelandic where passive subjects preserve their oblique case. The examples in (17) are an illustration of the Icelandic preservation of oblique case in passive constructions.

(17)   Icelandic examples (Zaenen, Maling & Thráinsson 1985)
         a. *Ég   hjálpaδi   honum.*
            I   helped   him (dat)   ((8a) in ZMT 1985)
         b. *Honum   var   hjálpaδ* ((1) in ZMT 1985)
            him (dat)   was   helped
            'He was helped.'

With respect to passive subject case marking, MD falls into the same class with SJ. In SJ, non-macrorole arguments lose their oblique cases and they are case marked with the nominative

when they promote to passive subject position. The nominative case marking for the non-macrorole argument in passive constructions found in SJ is illustrated in (18c).

(18)　　SJ examples (Nakamura 1999)
　　　　a. *John-ga　　Tom-ni　　kasi-o　　atae-ta.*
　　　　　John-NOM　　Tom-DAT　cake-ACC　give-PAST
　　　　　'John gave a cake to Tom.'
　　　　b. *Kasi-ga　　Tom-ni　　atae-rare-ta.*
　　　　　cakes-NOM　Tom-DAT　　give-PASS-PAST
　　　　　'Cakes were given to Tom.'
　　　　c. *Tom-ga　　kasi-o　　atae-rare-ta.*
　　　　　Tom-NOM　　cakes-ACC　give-PASS-PAST
　　　　　'Tom was given cakes.'

In passive constructions, subject properties can be found only in the derived subject. The oblique agent does not show any subject properties. See the example in (19). Being an antecedent of the reflexive pronoun is one of the subject properties in this dialect. In (19), the derived subject *are* '3SG-NOM' is interpreted as the antecedent of the reflexive pronoun, while the locative agent is not a candidate for antecedent. Thus, the passive agent loses pivotal status.

(19)　　Distribution of subject properties in passive
　　　　(Antecendent of reflexive pronoun: derived subject, not oblique agent)
　　　　are$_i$　　odo:to$_j$-ni　zibuN$_{i/*j}$-no　heja-de　　ogos-are-da.
　　　　3SG-NOM　brother-LOC　self-GEN　　room-INST　waken up-PASS-PAST
　　　　'He was wakened up by his brother in his own room.'

There are no oblique elements functioning like a subject in passives.[3] The elements functioning as subjects are always case marked with nominative in passives.

2.3. The Potential Constructions
In the MD potential constructions, the elements corresponding to active subjects are marked with experiencer case, as shown in (20).

(20)　　a. *ome　　jane-sa　　noboQ-ta-ga?*
　　　　　2SG-NOM　roof-DAT　climb-PAST-Q
　　　　　'Did you get on the roof?'
　　　　b. *ome-nganja　jane-sa　nobor-e-Q-ka?*
　　　　　2SG-EXP.TOP　roof-DAT　climb-POT-PAST-Q
　　　　　'Can you get on the roof?'

With respect to subject properties, the experiencer case marked nominals in potential constructions display the same behavior as the experiencer case marked nominals in underived

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[3]　The indirect passives are exception for this point. However, the subject properties of oblique elements in indirect passives can be considered as a result from their biclausal nature. Thus, this exception is not relevant to the present discussion. For the detailed discussion for the indirect passive and the other biclausal constructions, see Sasaki (2004).

constructions, i.e., they can be considered to be oblique subjects. As exemplified in (21), the experiencer case marked nominal exhibits subject properties.

(21)   Subject property (antecedent of reflexive pronoun):
         are$_i$-nganja   zibuN$_i$-no   kuruma   naos-e-me.
         3SG-EXP.TOP   self-GEN   car-ACC   repair-POT-may not
         'He may not be able to repair his own car.'

Quirkiness is not limited to transitive-based potential constructions but is also found in intransitive-based potential constructions as seen in (20b). In this respect, this dialect is different from Standard Japanese.

   This dialect permits case-frames without a nominative in active and potential constructions but not in passive constructions.

3. Problem to be solved
The nominative requirement is operative only in a certain type of derived construction, namely the passive. This situation seems to be parallel to the derived environment effect (DEE, Kiparsky 1973) in phonology. The DEE is a situation where a certain phonological process is active only in some derived environments.

   Finnish assibilation (Kiparsky 1973) is a classic case of DEE. The data in (22) illustrate that underlying /t/ changes to [s] before [i] in the derived environment, though it remains intact in the underived environment.

(22)   a. *halut-a* 'want' *halus-i* 'wanted' (derived environment)

         b. *koti* 'home'   *tila* 'place, room' (underived environment)

         c. /t/ → [s]/__i, only in derived environment

The parallelism between Finnish assibilation and nominative requirement in MD is not perfect. There is a difference. Finnish assibilation applies to all types of derived environments, not only morphologically derived environments as shown in (22a), but also phonologically derived environments where the derived /t/ becomes [s] before [i] derived by word-final raising, e.g., *vesi* 'water-NOM' (*vete* → word final raising → *veti* → *vesi*).

   The nominative requirement in MD is active only in a certain morphologically derived construction, namely the passive. It is not obligatory in potential constructions, another derived construction, or in underived constructions.

         Any theory of grammar that attempts to account for the MD case system must explain the partial nature of the nominative requirement discussed above and why its obligatory application is limited to the passive.

(23)　　　Problem to be solved:

　　　　　Why are non-macrorole subjects case marked with nominative only in passives?

Previous accounts of RRG based case frame typology fail to solve this problem. Some modification of the theory is necessary.

4. Previous RRG Accounts for Quirky Subject and Typology of Case Systems

Van Valin (1991) is an RRG account for quirky case constructions and their interaction with voice in Icelandic. Icelandic is a language with quirky subject and object constructions. In this language, oblique objects promote to subject with their oblique case remaining intact in the passive formation.

　　On Van Valin's (1991) account, quirky case for core arguments (subject or object) is due to their non-macrorole status and subject properties of oblique experiencers result from the accessibility of pivot hierarchy proposed therein. Oblique case preservation for the passive subject is assumed to be the consequence of RRG characterization of passive and general case marking principles.

　　This account should be applicable to most types of quirky subject constructions in other languages, including MD. The case frame without nominative elements found in active and potential constructions in MD can be regarded as a consequence of the lexical feature of predicates that do not assign macrorole. Of course, modifications are necessary for the adaptation of this account to the MD quirky subject constructions. In RRG, dative is assumed to be an unmarked case for non-macrorole arguments. In MD, non-macrorole arguments are case-marked in two ways: dative (*-nge/-sa*), if the argument is goal or theme, and experiencer case (*-ngani*), if it is experiencer. This situation is easily handled with the addition of a condition, such as "assign experiencer case if the non-macrorole argument is experiencer, otherwise non-macrorole argument should be marked with dative."

　　The RRG (Foley & Van Valin 1984) characterization of passive has two parts: a non-actor is linked to the pivot, and the unmarked option is undergoer; the actor is linked to peripheral status or is omitted.

(24)　　　RRG characterization of passive (Foley & Van Valin 1984):

　　　　　a. ~Actor = Pivot (undergoer　> other)

　　　　　b. Actor = X (the actor is linked to peripheral status or is omitted)

The important point is the promotional aspect of the characterization. Icelandic permits not only the undergoer but also the non-macrorole arguments to be linked to the pivot in the passive. When a non-macrorole argument is promoted to pivot, it is marked with dative case because

dative is an unmarked case for non-macrorole arguments. The cross-linguistic prediction derived from Van Valin's (1991) account is given in (25).

(25)   Predictions derived from Van Valin's account:
   1.   The passive subject is marked with the nominative, in languages where passive pivot is restricted to undergoer.
   2.   The passive subject may be marked with oblique case (generally dative), in languages where not only undergoers but also non-macrorole arguments are permitted to be linked to passive pivot. Whether the passive subject is marked with the nominative or oblique case depends on whether it bears a macrorole or not.

The first part is undisputable. The second part of the prediction is valid at least for Icelandic and German but there are languages where the second prediction does not hold. French (Postal 1986), SJ (Nakamura 1999) and the MD under discussion are languages where the second part of the prediction does not hold. In these languages, non-macrorole arguments promoted to passive subject are marked with the nominative.

   Classic RRG has no mechanism for blocking oblique case marking for non-macrorole arguments and cannot deal with nominative assignment to a non-macrorole subject derived in passive constructions. In languages where dative shift is found, nominative case marking of the recipient argument in passive subject position can be analyzed as a result of the variable undergoer assignment, namely the active counterpart of (26a) is not (26b) but (26c).   If *Mary* in (26a) bears the macrorole undergoer, nominative assignment to the passive subject can be regarded as a result from the general case assignment.

(26)   a. *Mary was given a present.*
         b. *(Someone) gave a present to Mary.*   (Undergoer = a present)
         c. *(Someone) gave Mary a present.*   (Undergoer = Mary)

However, in the languages like French, SJ and MD, where dative shift constructions are not found, the explanation with the variable undergoer assignment is not an available option. In these languages, oblique elements do not generally alternate their case marking with the accusative. If one assumes that the nominative recipient argument in passives like *Tom* in (18c) bears the macrorole undergoer, nominative case marking for the passive subject can be regarded as a result of the general case assignment rule. But this incurs another problem, namely that of the otherwise unmotivated recipient—undergoer mapping in these languages. Thus, the variable undergoer assignment cannot be a solution.

   To solve this problem Nakamura (1999) proposed an RRG-OT typology of case systems.

Nakamura's (1999) RRG-OT typology provides a solution for this nominative assignment to non-macrorole argument. Nakamura assumes four general constraints for case marking. The relevant constraints for nominative assignment to non-macrorole arguments are (27a) and (27b). I will refer to (27a) and (27b) as NOMINATIVE and DATIVE respectively.

(27)　　　Case Marking Constraints (Nakamura 1999)

　　　　　a. Some arguments receive NOMINATIVE case.

　　　　　b. Non-macroroles receive DATIVE case.

　　　　　c. Undergoers receive ACCUSATIVE case.

　　　　　d. Actors receive ERGATIVE case.

According to Nakamura (1991), nominative case marking of a non-macrorole subject in the passive is due to the undominated status of the constraint NOMINATIVE. This is the case of Standard Japanese. In languages, such as Icelandic, NOMINATIVE is ranked lower than DATIVE.

(28)　　　a. DATIVE >> NOMINATIVE (Icelandic)

　　　　　b. NOMINATIVE >> DATIVE (SJ)

The undominated status of NOMINATIVE enforces every sentence to have at least one nominative element. Nominative assignment to non-macrorole arguments in passive constructions can be regarded as a result from the avoidance of the violation of NOMINATIVE. Under the ranking in (28b), the general mapping requiring assignment of oblique cases to non-macrorole arguments fails in favor of the satisfaction of the higher ranked constraint NOMINATIVE. The constraint ranking (28b) is effective for the explanation of nominative assignment to non-macrorole arguments. However, this constraint ranking has a disadvantage when applied to the MD data.

　　As Woolford (2001) pointed out, the constraint ranking with NOMINATIVE rules out sentences lacking a nominative element. The ranking (28b) predicts that the active and potential sentences without nominative are ungrammatical. However, in MD, this is not the case.

(29)　　　Problem with Nakamura's (1999) account:

　　　　　The undominated status of NOMINATIVE rules out not only passive oblique subjects
　　　　　but also the case frames without a nominative in the active and potential constructions.

Nakamura's OT-enhanced RRG account gives us a solution for nominative assignment to non-macrorole arguments in passives, but fails to capture the active and potential sentences

without nominative.

   We need another solution. The next section provides an Optimality Theoretic solution with the enhancement of Local Conjunction (Smolensky 1995).

5. Proposal

In order to deal with the situation in MD, I would like to offer a constraint-based solution to the DEE in the MD case marking. I assume that Van Valin's account that non-macrorole specification results in oblique case marking is valid. But, a certain special factor blocks this general case assignment.

   Notice that the passive construction with an oblique subject involves two marked mappings between case and role.

(30)   Marked situations

         a. Mapping actor to peripheral or oblique status is more marked than actor-pivot
            mapping at least in accusative case systems.

         b. Oblique subject (pivot) is more marked than nominative pivot.

Assuming that a marked situation involves violation of some constraint, the partial DEE in MD case marking can be described as follows: passive with nominative subject incurs violation of the constraint responsible for (30a) but this violation is not regarded as fatal, the potential construction has an oblique subject and violates the constraint responsible for (30b) but this violation is not regarded as fatal. On the other hand, passive constructions with oblique subject incur multiple violations of the constraints behind (30a) and (30b). These multiple violations result in ungrammaticality. The situation is summarized in Table 3.

Table 3. *Constraint violation and grammaticality on case mapping in MD*

	Constraint Violation	Grammaticality
Passive with nom. Subject	Single, (29a)	Grammatical
Potential	Single, (29b)	Grammatical
Passive with oblique subject	Multiple, (29a) & (29b)	Ungrammatical

In order to capture the situation in (30), I assume the general constraints on case-role mapping in (31) and (32).

(31)   Align($^\wedge\theta$, pivot): Align highest thematic role to pivot (abbreviated $^\wedge\theta$Pi).

(32)   *OblPi: Avoid oblique pivot.

The constraint $^\wedge\theta$Pi is satisfied when the highest argument of a given predicate in the thematic hierarchy is aligned to pivot. This satisfaction is typically found in active constructions. The

constraint *OblPi is satisfied when the pivot is case marked with the nominative.

In passive constructions, the constraint ^θPi is violated because the highest thematic role, agent, is not a pivot. The constraint *OblPi is violated in the oblique subject constructions where the oblique elements have pivotal status.

The constraints responsible for passive and potential formation are given in (33) and (34), respectively. The constraints in (33) are the OT translation of the RRG characterization of the passive.

(33)　　　Constraints behind the formation of passive constructions:

　　　　　a. *APi: Actor must not be a pivot.

　　　　　b. Align(non-actor, pivot): Align non-actor to pivot (abbreviated NonAPi)

(34)　　　Constraint behind the formation of potential constructions:

　　　　　^θExp: The highest thematic role argument must be marked with experiencer case.

I assume that there is a faithfulness constraint that guarantees the cross-constructional identity of case marking for the argument of a given predicate.

(35)　　　Faithfulness constraint:

　　　　　Ident(case): Case category [direct/oblique] for a given argument must remain constant

　　　　　　　　across constructions.

(36)　　　*APi, NonApi, ^θExp >> Ident(case) >> *OblPi, ^θPi

The ranking (36) reflects the relative importance of various constraints in MD. Since the dialect has voice phenomena, constraints responsible for voice must be ranked higher than other constraints. There is a fairly high degree of cross-constructional identity of case. This indicates that the faithfulness constraint has a relatively high rank.

This ranking accounts successfully for the case mapping of the potential constructions and passive constructions from transitive clauses. The successful evaluation for these constructions is given in Tableaux 1 and 2. In these Tableaux, the constraints banning marked case—role mappings, i.e., ^θPi and *OblPi, play no crucial roles in the evaluations. These lower ranked constraints are violated in favor of the higher ranked constraints for voice specific mappings.

Tableau 1. Passive mapping (based on transitive)

V_t (agt, theme)-pass	*APi	NonApi	^θPi
agt(pivot), theme	*!	*	
☞　agt, theme(pivot)			*

Tableau 2. Mapping in potential constructions

V$_i$ (agt(A), goal(NMR))-pot	^θExp	Ident(case)	*OblPi
a. NOM(agt), DAT(goal)	*!		
b. EXP(agt), NOM(goal)		**!	*
☞ c. EXP(agt), DAT(goal)		*	*

However, the ranking wrongly predicts that the non-macrorole elements should preserve their oblique case marking when promoting to passive subject position. This is the case of Icelandic, but not the situation found in MD. See the wrong evaluation in Tableau 3.

Tableau 3. Failed evaluation

	V$_{ditr}$ (agt(A), rec(NMR), th(U))-pass	*APi	NonApi	Ident(case)	*OblPi	^θPi
	a. nom(agt), dat(rec), acc(th)	*!	*			
Actual	b. nom(rec), acc(th), loc(agt)			**!		*
☞	c. dat(rec), acc(th), loc(agt)			*	*	*

A way out of this difficulty is provided by Local Conjunction. Local Conjunction is a mechanism deriving an undominated constraint on the basis of two lower-ranked constraints. In phonology, Lubowicz (2002) argues that the DEE is obtained when a markedness constraint is conjoined with a certain constraint violated by a process. We can apply the same thinking to the present situation. In this case, the relevant constraints are ^θPi and *OblPi. When these constraints are conjoined and the conjoined constraint is undominated, the lower ranked *OblPi is operative only when ^θPi is violated otherwise it is not operative. In other words, oblique subject avoidance or nominative requirement for subject is operative in the case of the passive where *APi enforces the violation of ^θPi. The final constraint ranking and the evaluation of passive with oblique complement are illustrated in (37) and Tableau 4, respectively.

(37)   [^θPi&*OblPi] >> *APi, NonApi, ^θExp >> Ident(case) >> *OblPi, ^θPi

Tableau 4. Nominative assignment to non-macrorole argument in passive

V$_{ditr}$ (agt(A), rec(NMR), th(U))-pass	[^θPi&*OblPi]	*APi	NonApi	Ident(case)	*OblPi	^θPi
a. nom(agt), dat(rec), acc(th)		*!	*			
☞ b. nom(rec), acc(th), loc(agt)				**		*
c. dat(rec), acc(th), loc(agt)	*!			*	*	*

The undominated conjoined constraint in the left-most row rules out the candidate (c) with an oblique subject in the passive. The constraints responsible for voice rule out the candidate (a), the one with active mapping. The candidate (b) where the non-macrorole argument is marked

with nominative case is the winner.

Now, we have the answer to the problem why the oblique subject is ruled out in the passive. Oblique subjects in active and potential constructions violate only one lower ranked constraint *OblPi. On the other hand, oblique subjects in passive constructions incur the violation of two lower ranked constraints and this multiple violation of constraints can be regarded as the source of the partial DEE in MD

The intuition behind Local Conjunction is that certain constraints can be violated separately but the simultaneous violation is ruled out in certain languages. The reranking of the constraints proposed for MD data enables us to account for the situation in the Icelandic passive. The difference between the two languages is that whereas the conjoined constraint is undominated in MD, it is dominated by the voice constraints. See Tableau 5. Thus our analysis can capture the cross-linguistic variation.

Tableau 5. Icelandic passive

hjálpa (agt(A), th(NMR))	*APi	NonAPi	Ident(case)	*OblPi	^θPi	[^θPi&*OblPi]
a. nom(agt), dat(th)	*!	*				
b. nom(th), af dat(agt)			**!		*	
☞ c. dat(th), af dat(agt)			*	*	*	*

6. Conclusion

This paper proposed a solution for DEE in the MD case marking with Local Conjunction of two markedness constraints on case-role mapping, clarifying that the lower ranked *OblPi and ^θPi play a crucial role for nominative case marking for non-macrorole subject in passive. The obligatory nominative case marking for passive subject (or the exclusion of oblique subject in passive constructions) is considered to be a result from the avoidance of multiple violations of the markedness constraints.

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執筆者紹介
所属：Sapporo Gakuin University
Email：ksasaki@sgu.ac.jp