Ergativity of Nouns and Case Assignment

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1. Introduction

Grimshaw and Mester (1988) deal with the interesting issue of θ-marking in regard to complex expressions consisting of a noun followed by the verb suru in Japanese.¹ A representative example of what they discuss is in (1), in which KEEKOKU is a Sino-Japanese compound noun. The noun KEEKOKU can be assigned accusative case by suru as in (1a), or it can be incorporated into the verb suru as in (1b), forming a complex predicate.²

(1) a. John-wa murabito-ni ookami-ga kuru-to KEEKOKU-o sita.
   John-Top villager-to wolf-Nom come-Comp warning-Acc suru-Past
   'John warned the villagers that the wolf was coming.'

   John-Top villager-to wolf-Nom come-Comp warning-suru-Past
   'John warned the villagers that the wolf was coming.'

Grimshaw and Mester identify the verb suru in (1a) as a light verb and claim that the light verb has an empty argument structure in its lexical entry. When the light verb cooccurs with a nominal that has argument structure, the θ-role of the nominal can be transferred to the light verb, whereby the verb acquires θ-marking ability. They call this

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¹ Many of the nouns that occur in this construction are Sino-Japanese compound nouns (that is, compounds of Chinese origin). However, nouns of Japanese origin, such as hanasi 'talk', are not excluded from appearing in the construction.

² Following Grimshaw and Mester, the θ-marking noun will be capitalized in the examples throughout this article.
process Argument Transfer. Another property of the light verb suru is that it assigns accusative case. The lexical entry of suru is given in (2).

(2) suru, V; ( ) <acc>

The empty space in the parentheses indicates that the verb’s argument structure is empty, and <acc> shows the verb’s ability to assign accusative case.

Grimshaw and Mester further discuss three crucial generalizations pertinent to Argument Transfer. Of the three generalizations, the following two are relevant to our discussion: (i) at least one argument apart from the subject must be transferred, and (ii) the subject argument must always be transferred. Assuming that argument structure is hierarchically organized, the external argument being external and the internal argument being internal, Transfer occurs in a top-down fashion. It follows that if an internal argument is transferred, then the external argument is transferred as well. The process of Argument Transfer involved in the formation of (1a) is illustrated in (3).

(3) a. KEEKOKU (Agent (Goal (Theme)))
   b. suru ( ) <acc>
   c. KEEKOKU ( ) + suru (Agent (Goal (Theme))) <acc>³

Since the internal arguments (Goal and Theme) are transferred to the argument structure of suru, the external argument (Agent) is also transferred. Suru now has the ability to assign a θ-role to the Agent, Goal, and Theme arguments in addition to its original ability to assign accusative case.

Miyagawa (1989) correctly points out that Grimshaw and Mester have overlooked the fact that not every noun plus suru displays the configurations shown in (1a) and (1b). For example, compare (4) (= Grimshaw and Mester’s (19c)) and (5).

(4) ??John-wa butyoo-ni SYOOSIN-o sita.
   John-Top section chief-to promotion-Acc suru-Past
   ‘John obtained a promotion to section chief.’

(5) John-wa butyoo-ni SYOOSIN-sita.
   John-Top section chief-to promotion-suru-Past

The sentence in (4), where SYOOSIN appears with accusative case, is extremely awkward, whereas (5), where the noun is incorporated into the verb suru, is perfectly acceptable. There is a class of noun plus suru complexes that allows only the type of configuration shown in (1b). Miyagawa explains the ungrammaticality of (4) based on the syntactic behavior of numeral quantifiers. He claims that the noun SYOOSIN is ergative and accordingly bears a θ-role for the internal argument, which is the sole argument of the noun. Thus, the noun fails to bear a θ-role for its grammatical function

³ It is not clear from Grimshaw and Mester’s discussion whether the internal argument remains internal and the external argument remains external after Transfer. In this article, I will assume that the status of the argument (external or internal) is also inherited as a result of Transfer.
(GF) subject. However, if the light verb assigns accusative case to the noun as in (4), it clearly violates Burzio’s Generalization. Burzio’s Generalization (Burzio 1981; 1986), which is shown in (6), states that if a given verb does not assign a θ-role to its GF subject slot, then it will not assign accusative case to its object.

(6)  \(-\theta, \rightarrow -A\)

The complex predicates comprising a noun and suru that exhibit the configuration shown in (5) but not the one shown in (4) (that is, those exactly like SYOOSIN-suru) include the following:

(7) SEETYOO-suru  ‘grow’  KOOZYOO-suru  ‘improve’
KAKUDAI-suru  ‘enlarge’  ZYOOSYOO-suru  ‘go up’
TINBOTU-suru  ‘submerge’  GYOOKO-suru  ‘solidify’
SYUKUSYOO-suru  ‘reduce’  KANSOO-suru  ‘dry’
ZENSYOO-suru  ‘burn down’

Hence, Miyagawa attributes the ill-formedness of (4) to the violation of Burzio’s Generalization. The identification of nouns such as SYOOSIN as ergative is overlooked by Grimshaw and Mester, who instead account for the ill-formedness of (4) as a “lexical gap.” Nevertheless, Miyagawa’s analysis is compatible with their process of Argument Transfer and moreover provides support for Burzio’s Generalization.

In this article I will demonstrate that the resultative construction in Japanese, taken together with argument linking generalizations and Miyagawa’s independent discussion on numeral quantifiers, constitutes a substantial body of evidence for the ergativity of the nominals in (7). Given the ergativity of the nominals, the Argument Transfer that they undergo is schematized in (8).

(8) a.  SYOOSIN (Theme)
   b.  suru (   ) (acc)
   c.  SYOOSIN (   ) + suru (Theme) (acc)

Since SYOOSIN is ergative, it takes only an internal argument. According to the above-mentioned generalizations relevant to Argument Transfer, at least one internal argument must be transferred. The only argument available for Transfer is the sole argument of SYOOSIN, namely, Theme. Recall that when a noun’s internal argument is transferred to a light verb, the external argument is also transferred as a consequence of the top-down fashion of Transfer. However, in the case of (8) the external argument cannot be transferred simply because the nominal does not have one in its argument structure. That is, the light verb inherits the nominal’s inability to assign a subject θ-role. Then Burzio’s Generalization comes into play and explains why the light verb should also be incapable of assigning accusative case. Hence, I will conclude that the analysis outlined above provides evidence that both Burzio’s Generalization and Argument Transfer play an important role in explaining the θ-assigning and case-assigning properties of ergative nouns.
2. The Resultative Construction

The resultative construction is described by Halliday (1967, 63) as an attribute that results from a process. Simpson (1983) discusses the resultative construction in English with examples like those in (9).

(9) a. I painted the car yellow.
   b. I painted the car a pale shade of yellow.
   c. I cooked the meat to a cinder.
   d. The boxer knocked John out.

The italicized expression is called a **resultative attribute** and describes the state of an argument resulting from the action denoted by the verb. For example, (9a) means ‘I painted the car, and because I painted the car, the car became yellow’. Simpson observes that resultative phrases are always predicated of the object function in English. Thus, in the above examples the object of the verb (the car in (9a,b), the meat in (9c), and John in (9d)) is the argument whose state is described as resulting from the action.

What about resultative expressions with intransitive or passive verbs? Consider the intransitive and passive examples with resultative attributes in (10)–(11).

(10) a. The ice cream froze solid.
   b. The butter melted to a liquid.
   c. The vase broke into little pieces.
(11) a. The car was painted red.
   b. The ice cream was frozen solid.

The subjects in (10) are the arguments of which the resultative attributes are predicated. Thus, in (10a), for example, the ice cream, which is the subject of the sentence, froze, and as a result, it became solid. The situation is the same for passive constructions. In (11a) the car was painted, and as a result, it became red. Therefore, the sentences in (10) and (11) seem to suggest that the controller of a resultative attribute is the subject when the verb is intransitive or passive.

Simpson, however, goes on to say that we can still maintain the generalization in English that the controller of a resultative attribute is always the object function because the subjects of the sentences in (10) and (11) are, in fact, underlyingly the objects. For verbs such as those in (10), if we focus on the Theme role assignment, assuming that the Theme role is normally linked to the object, the underlying object status of the subject can be observed in the contrast in (12)–(14).

(12) a. I froze the ice cream solid.
   b. The ice cream froze solid.
(13) a. I melted the butter to a liquid.
   b. The butter melted to a liquid.
(14) a. I broke the vase into pieces.
   b. The vase broke into pieces.
The underlying objects in the (b)-sentences can clearly be contrasted with the subjects of unergative verbs in regard to resultatives. Consider the following examples.

(15) a. *I danced tired.
    b. *I laughed tired.
    c. *I walked tired.

(15a), for example, does not mean that I danced, and as a result, I got tired. The italicized resultatives thus cannot be interpreted as being predicated of the subject. These sentences sharply contrast with the (b)-sentences of (12)–(14), where such a predication relation holds. Hence, if the surface subject in the (b)-sentences of (12)–(14) is identified as the underlying object, neither case in (10)–(11) (ergative verbs and passive) would constitute a counterexample against the generalization that the controller of a resultative attribute is always the object. The statement in (16) is the syntactic generalization that Simpson claims to hold for resultatives in English (1983, 146).

(16) The controller of a resultative attribute must be an OBJECT, whether that OBJECT is a surface OBJECT, as in transitive verbs, or an underlying OBJECT, as in passive and intransitive verbs of the Unaccusative [= Ergative] class.

Let us now examine whether the generalization in (16) also holds for Japanese verbs of Japanese origin. First, consider the resultative construction with a transitive verb.

(17) a. Kuruma-o akaku nutta.
    car-Acc red painted
    ‘(I) painted the car red.’

    b. Hanmaa-de kinzoku-o hirataku utta.
    hammer-with metal-Acc flat hit
    ‘(I) hit the metal flat with a hammer.’

    c. Syatu-o kiree-ni aratta.
    shirt-Acc clean-to washed
    ‘(I) washed the shirt clean.’

    d. Pan-o makkuro-ni yaita.
    bread-Acc really black-to toasted
    ‘I burned the bread black.’

    e. Hanako-wa kami-o nagaku nobasita.
    Hanako-Top hair-Acc long lengthened
    ‘Hanako let her hair grow long.’

Verbs of Japanese origin display a verbal inflectional pattern. For example, they all inflect for past by the suffixation of -ta, as in tabe ‘to eat’ + -ta (past) → tabeta ‘ate’. Sino-Japanese compounds by themselves do not show such an inflectional pattern simply because they are categorically nouns. To make them function as verbs, the light verb suru must be added. Since suru is a verb of Japanese origin, following the verbal inflectional pattern, a complex predicate comprising a Sino-Japanese compound and suru patterns like a verb of Japanese origin.
The italicized expressions are resultative attributes. In all the examples above, the resultative attributes are predicated of the accusative (-o) marked noun. (17c), for instance, does not mean that I washed the shirt, and because I washed it, I became clean. Instead, it means that I washed the shirt, and because I washed it, the shirt became clean. Thus, as far as transitive verbs are concerned, the controller of a resultative attribute is the object in Japanese.

Second, let us examine intransitive verbs in the resultative construction.

(18) a. Hanako-no kami-ga nagaku nobita.
    Hanako-Gen hair-Nom long  lengthened
    ‘Hanako’s hair grew long.’

b. Pan-ga makkuro-ni yaketa.
    bread-Nom really black-to toasted
    ‘The bread burned black.’

c. Hune-ga suityuu hukaku sizunda.
    ship-Nom in water deep  sank
    ‘The ship sank deep in the water.’

Each italicized resultative attribute in (18) is predicated of the noun in its sentence that is marked with the nominative case -ga—in other words, of the subject. In (18a), for example, it is Hanako’s hair that became long as a result of the growth of the hair. Thus, on the basis of the intransitive examples in (18), it appears that the controller of the resultative with an intransitive verb is its subject. The situation is, however, exactly parallel to the English cases discussed above: the contrast between (18) and (19) corresponds to the one between the (a)-sentences and the (b)-sentences of (12)–(14).

(19) a. Hanako-wa kami-o nagaku nobasita.
    Hanako-Top hair-Acc long  lengthened
    ‘Hanako let her hair grow long.’

b. Taroo-wa pan-o makkuro-ni yaita.
    Taroo-Top bread-Acc really black-to toasted
    ‘Taroo burned the bread black.’

c. Soviets-wa hune-o suityu hukaku sizumeta.
    Soviets-Top ship-Acc in water deep  sank
    ‘The Soviets sank the ship deep in the water.’

In (19) the same nouns as in (18) are the controllers of the resultative attributes. The causative/inchoative pairs in Japanese are not formally identical, as they are in English. However, the forms in each pair are morphologically related, as (20) illustrates. They are parallel to English in that the subject of the inchoative verb is the object of its causative counterpart.\(^5\)

\(^5\) The causative/inchoative pairs in Japanese are explored in detail in Jacobsen (1982). Each causative/inchoative pair shares a verbal root, which is why the surface forms of the pair resemble each other. To the verbal root, a certain morpheme is suffixed. There are more than a dozen morpheme sets for causative/inchoative pairs. Which morpheme goes with which root appears to be a lexical property.
It is well known that there is a systematic regularity in the way in which θ-roles are linked to grammatical functions (Fillmore (1968) and Jackendoff (1972), among others): Agent is linked to subject, Theme is mapped onto object, and so on. Let us assume that the underlying objecthood of inchoative verbs in English and Japanese relies on such a linking generalization. That is, the sole argument of inchoative verbs is Theme and thus is linked to object. This leads us to the conclusion that the object, surface or underlying, is the controller of a resultative attribute in Japanese. Hence, the generalization in (16) is borne out not only in English but also in Japanese.

Assuming that the generalization in (16) is a relevant condition on the resultative construction in Japanese, let us now investigate the complex predicates particularly with respect to the resultative construction. To begin with, (21) illustrates a transitive complex predicate with a resultative attribute.6

Taroo-Nom electric wire-Acc two-to cutting-suru-Past  
‘Taroo cut the electric wire in two.’

b. Sobietogun-ga dairiseki-no siro-o konagona-ni HAKAI-sita.  
Soviets-Nom marble-Gen castle-Acc into pieces destroying-suru-Past  
‘The Soviets destroyed the marble castle into pieces.’

c. Kokka-wa sono arehateta toti-o utukusii heeya-ni  
country-Top that desolate land-Acc beautiful plain-to  
KAITAKU-sita. improvement-suru-Past  
‘The country improved that desolate land into a beautiful plain.’

The complex predicates in (21) are all transitive. As predicted by the generalization in (16), the italicized resultative attribute is predicated of the object, which is marked by the accusative case -o. Thus, (21a) means that as a result of Taroo’s cutting the electric wire, the wire became two pieces, not that Taroo became two persons.

Next, observe the following examples, where some of the complex predicates in (7) are used.

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6 Some complex predicates consisting of a noun and suru are impossible when trying to construct a sentence with a resultative attribute. This is because, as Simpson observes, a resultative attribute cooccurs with a verb of contact and a verb that denotes change of state. I assume such a semantic restriction is effective in the Japanese resultative construction as well.
In every case in (22), the controller of the resultative attribute is the subject of the sentence. Thus, the resultative attribute describes the state of the subject of the sentence.

These examples sharply contrast with the following sentences.

   John-Nom dead tired taking a walk-suru-Past
   ‘*John took a walk tired.’

b. *Mary-ga **kanasiku** BISYOO-sita.
   Mary-Nom sad smile-suru-Past
   ‘*Mary smiled sad.’

The italicized phrases cannot be construed as resultative attributes predicated of the subject. That is, (23a) cannot mean that John took a walk, and as a result, he got dead tired. Likewise, the resultative reading cannot be obtained in (23b).

Notice that both sets of complex predicates—those in (22) and those in (23)—are used intransitively, but the resultative construction illuminates a distinct difference between the two. The subject of each sentence in (22) serves as the controller of the resultative whereas in (23) it does not. As in the English case of (10) versus (15), the Japanese data from the resultatives together with the above-mentioned linking generalizations lead us to the conclusion that the subject of each sentence in (22) is underlyingly its object whereas the subject of each sentence in (23) has always been its subject. This conclusion, coupled with Miyagawa’s (1989) independent syntactic evidence, substantially supports the view that the nominals in (22) as well as those in (7) are ergative.

It should be noted that the identification of the nouns in (22) and those in (7) as ergative is not as predictable as it is with the Japanese native verbs in (18)–(20) or with the English expressions in (12)–(14). This is because, unlike the forms in (20), the complex predicates (or the nouns themselves) in (7) do not exhibit causative counterparts that
are morphologically identical with or similar to them.\textsuperscript{7} Hence, it is only by syntactic
and/or semantic tests, but not by forms, that we can recognize the ergative status of the
nouns, and ultimately of the complex predicates, in (7).

The ergative analysis of the complex predicates in (7) is also supported on semantic
grounds. The evidence comes from the parallelism in meaning between the complex
predicates in (7) and the Japanese native verbs of the ergative class, as in (20). Recall
that the complex predicates in (7) are always intransitive and have no morphologically
identical or related verbs that would constitute causative/inchoative pairs like the Japa-
nese native verbs in (20). However, many of them find synonyms among the causative/
inchoative pairs belonging to the Japanese native verbs. When the complex predicates
in (7) and their synonyms from the Japanese native class are compared with regard to
their meanings, it is always the ergative counterpart that corresponds to the meaning of
the complex predicate. For example, the complex predicate \textit{SEETYOO-suru} ‘grow’ in
(7) has a synonymous verb of Japanese origin, namely, \textit{sodatu}. \textit{Sodatu} is an inchoative
(= ergative) verb whose causative counterpart is \textit{sodateru}. As can be seen, \textit{sodatu} and
\textit{sodateru} are morphologically related. I list more examples of this relationship between
the complex predicates in (7) and causative/inchoative pairs of Japanese origin in (24).
(In parentheses are the transitive counterparts of the synonyms.)

(24) \begin{tabular}{lll}
\textit{Complex predicates in (7)} & \textit{Synonym-inchoative} \\
\textit{TINBOTU-suru} & ‘submerge’ & \textit{sizumu} & (\textit{sizumeru}) \\
\textit{KAKUDAI-suru} & ‘enlarge’ & \textit{hirogaru} & (\textit{hirogeru}) \\
\textit{ZENSYOO-suru} & ‘burn down’ & \textit{yakeru} & \textit{\textit{yaku}} \\
\textit{GYOOKO-suru} & ‘solidify’ & \textit{katamaru} & (\textit{katameru}) \\
\textit{ZYOOSYOO-suru} & ‘go up’ & \textit{agaru} & \textit{\textit{ageru}} \\
\textit{KAKOO-suru} & ‘go down’ & \textit{sagaru} & (\textit{sageru}) \\
\textit{KAIMETU-suru} & ‘be demolished’ & \textit{kowareru} & (\textit{\textit{kowasu}}) \\
\textit{SYUKUSYOO-suru} & ‘reduce’ & \textit{tizimaru} & (\textit{tizimeru}) \\
\end{tabular}

(24) clearly demonstrates that there is a tight semantic relation between the inchoative
verbs of Japanese origin and the complex predicates in (7). Furthermore, the sole
argument of the complex predicates in (7) and of their inchoative synonyms is Theme.
Since the inchoative verbs in (24) are ergative, their synonymous complex predicates,
or, more specifically, the nouns themselves, may well be so analyzed, assuming that the
linking generalization is in effect.

Before closing the discussion of ergative nouns, I would like to point out that the
investigation of the relationship between noun types and accusative case assignment
leads to a classification of nouns and complex predicates that parallels the classification
of verbs. For example, \textit{KEEKOKU-suru} belongs to the transitive type since the noun

\textsuperscript{7} By \textit{causative} I mean a lexical causative rather than a morphologically productive causative form in-
volving \textit{-sase}. 
KEEKOKU is transitive. With a transitive noun, the external argument necessarily is transferred because of the generalization pertinent to Argument Transfer. This means that suru inherits the noun’s ability to assign the subject 0-role. It follows from Burzio’s Generalization, then, that the verb can also assign accusative case. The result is (1a).

An unergative noun, exemplified by AISEKI ‘table-sharing’, is expected to have only an external argument. The external argument must be transferred to the argument structure of suru, and at the same time suru inherits the ability to assign the subject 0-role. According to Burzio’s Generalization, accusative assignment should be possible. And indeed it is, as (25) shows.

   John-Top Bill-with table-sharing-Acc suru-Past
   ‘John shared a table with Bill.’
   John-Top Bill-with table-sharing-suru-Past

Burzio (1986) claims that an unergative verb such as laugh can assign accusative case to its object if such an object NP is available. This is why laugh can appear with an object as in John laughed a laugh.\(^8\) We can see the parallel situation in nouns like AISEKI. It is a consequence of Burzio’s Generalization that unergative nouns receive accusative case.

An ergative noun such as SYOOSIN ‘promotion’, on the other hand, cannot involve accusative case assignment at all. As schematized in (8), suru receives the sole argument of the noun—that is, Theme—by Argument Transfer. Being ergative, SYOOSIN is not able to assign the subject 0-role. It is this inability that the verb also inherits as a consequence of Argument Transfer. It follows from Burzio’s Generalization that if the verb cannot assign the subject 0-role, then it cannot assign accusative case. This is why the configuration of the sentence in (4) is ungrammatical.

3. Conclusion

In this article I have shown that some nouns and inchoative verbs in Japanese pattern in the same manner with respect to the resultative construction. Further, adopting the linking generalization has led us to the claim that the subjects of complex predicates comprising the nouns in (7) and the light verb suru are underlying objects. This conclusion, put together with Miyagawa’s independent argument, strongly supports the ergativity of the nouns in (7). Furthermore, the inability of ergative nouns to appear in the configuration in (4) is straightforwardly explained, given Burzio’s Generalization and the process of Argument Transfer. When the sole argument of the noun is transferred to the argument structure of the light verb, the verb also inherits the noun’s inability to assign a subject 0-role. It then follows from Burzio’s Generalization that the verb should

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\(^8\) I would like to thank Beth Levin for pointing this out to me.
not be able to assign accusative case. Hence, the above discussion presents an argument for Burzio’s Generalization and for Argument Transfer.

References


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