

**Differential Argument Marking and Object Movement in Old Japanese:
A Typological Perspective**

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Keywords: alignment, word order, genitive, active, nominalization, nominal hierarchy

Abstract

This paper discusses object movement and its diachronic source in what Yanagida and Whitman (2009) (Y&W) label *nominalized* clauses in Old Japanese (OJ; 8 century). When the subject is marked by genitive *ga*, the ancestor of Modern Japanese nominative, the object necessarily moves over the subject, resulting in OSV. Y&W argue that OJ *ga* is licensed by agentive *v* and that OSV word order is a property of active alignment. From both theoretical and typological perspectives, this paper argues that case marking and word order variations in OJ are best analyzed as instances of the typologically well attested phenomenon of Differential Argument Marking (DAM). It is shown that object movement is a widely attested subtype of DAM. This paper proposes that the so-called Subject-in-Situ Generalization (SSG) (Alexiadou and Anagnostopoulou 2001) provides a unified analysis of object movement across languages.

1. Introduction

The typological literature assumes that languages can be classified in terms of three types of alignment. In nominative/accusative languages, transitive subjects (A) are marked in the same way as intransitive subjects (S): nominative case, but differently from transitive O; accusative. In ergative/absolutive languages, S is marked in the same way as O; absolutive, but different from transitive subjects (A); ergative. Active languages are often classified as a subtype of ergative languages with split intransitivity. Intransitive predicates are split into active and inactive; agentive subjects are marked by active case, but non-agentive subjects are predominantly marked zero in the same way as transitive objects.

Yanagida and Whitman (2009) (henceforth Y&W) argue that OJ displays active alignment in *nominalized clause* types, including the adnominal clauses (1-3) and a variety of embedded clauses.

- (1) [*saywopimye no kwo ga pire* Ø *puri-si*] *yama* (MYS 868)
 Sayohime Gen child Agt scarf wave-Pst.Adn mountain
 ‘the mountain where Sayohime waved her cloth’
- (2) [*wagimokwo ga swode mo sipopo ni naki-si*] *so* [o]*mopayu* (MYS 4357)
 my.wife Agt sleeves even drenched cry-Pst.Adn Foc long.for
 ‘I long for my wife, who cries so that even her sleeves were sopping.’
- (3) [*aki no nwo ni tuyu* Ø *op-ye-ru*] *pagwi wo ta-wora-zu-te* (MYS 4318)
 fall Gen field Loc dew cover-Stat-Adn bush.clover Acc hand-break-not-Ger
 ‘without breaking off the dew-laden bush clover in the fall meadow’

Genitive *ga*, the ancestor of Modern Japanese (henceforth, ModJ) nominative case, marks the agent subjects of transitives (1) and active intransitives (2). The patient subjects of inactive intransitive verbs (3), however, behave like the objects of transitive verbs (1) in that they are *zero*-marked morphologically.

Transitive nominalized clauses display another important property. As described in detail by Yanagida (2006), when the direct object is marked with *wo*, it precedes the *ga*-marked external argument, as shown in (4):

- (4) *yama miti wo kimi ga kopem-aku* (MYS 4225)
 mountain road Obj you Agt cross-Nomlz
 ‘You cross over the mountain road.’

Movement of *wo*-marked objects is not an instance of scrambling but *obligatory movement* to the left of *ga*-marked subjects. The canonical [S *ga* O (*w*)o V] word order of ModJ is not found in OJ syntax. (see Yanagida 2006 for a potential counterexample in the MYS corpus.) Note, however, that unlike *ga*, the other OJ genitive *no* has no such restriction. The subject moves over the subject, resulting in the canonical SOV word order.

- (5) *ipyte pito no idura to ware wo topa-ba ikani ipa-mu* (MYS 3689)
 family Gen where Comp I Obj ask-if how say
 ‘If your family should ask me where (you are now), how should I reply to them?’

From a typological standpoint, Y&W (2009) argue that the OSV order in (4) is a property of active alignment. *Ga* is an inherent active case associated with a particular θ role: Agent, assigned by *v*. Transitive *v* assigns no accusative case.¹

¹ The basic view adopted by Y&W (2009) is that of Woolford (1997) regarding the distinction between lexical and inherent case: lexical case is idiosyncratic, associated with particular lexical items, while inherent case is associated with particular thematic roles or argument positions, such as the position of external arguments. As is well-known, genitive/active syncretism is cross-linguistically very common. The OJ genitive *ga* is homophonous with active case.

Another characteristic of active alignment in OJ is that subject NPs and their predicates are inclined to bear particular selectional relations. First/second person pronouns associated with prototypical agents predominantly occur with active predicates that express volition and control. In contrast, non-human and inanimate NPs are not transitivity prototype; they occur with inactive predicates which express no volition. The subjects of transitive and active intransitive verbs are marked by either *ga* or *no*, depending on their position in the nominal hierarchy (Silverstein 1976),² but never marked by *zero*. The subjects of inactive intransitive verbs are marked by *no* or *zero*, depending on whether they have specific interpretations. This is schematically illustrated in Figure 1 (see Yanagida (forthcoming)).

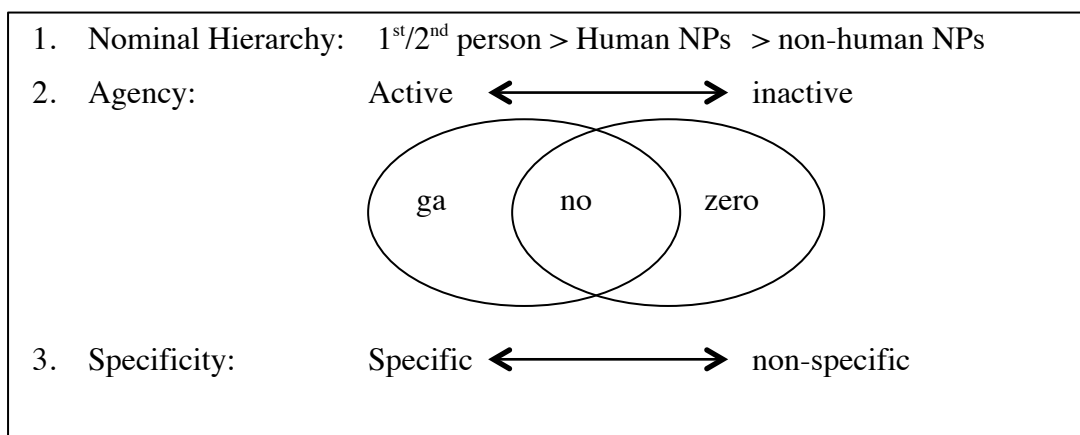
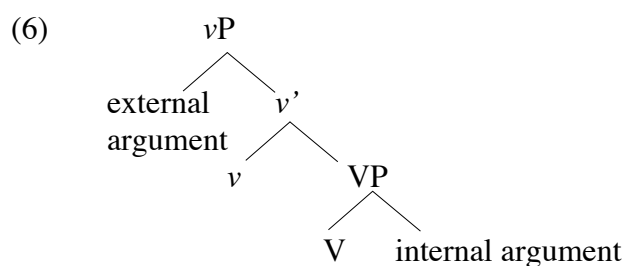


Figure 1. Three-way distinct marking on the subject in nominalized clauses

The idea that active case is an inherent case follows from the nature of ergative case proposed by many scholars (Woolford 1997, 2009, Legate 2002, 2008, Aldridge 2004, 2008, Anand & Nevins 2006, among many others).³ Legate (2008) proposes that while ergative is assigned to the external argument in the specifier position of [+transitive] *v*, active is assigned to the external argument in the specifier of agentive *v*, as represented in (6).

² Dixon (1979) interprets the nominal hierarchy to “roughly indicate the overall *agency potential* of any given NP” (1979:86-87), and observes that a number of languages have split case marking exactly on this principle.

³ The descriptive generalization that supports the view that ergative is an inherent case comes from the fact that derived subjects are never ergative. There is no language that promotes an object to ergative in the passive. Ergative subjects in some instances occur in non-finite clauses while structural nominative subjects cannot.



Some recent researchers, however, argue against the inherent case analysis of ergative, suggesting that ergative case is instead structural case. Baker (2014) argues that ergative case in Shipibo is structural case rather than inherent. Baker adopts a *dependent case* approach to ergative case, following the basic idea proposed by Marantz (1991). Rezac, Albizu, Etxepare (2014) claim that Basque ergative is structural, based on ergative-to-absolutive in so-called defective T contexts, such as raising and ECM constructions.

This paper revises important aspects of Y&W's (2009) analysis of active alignment in OJ. First, from a typological perspective, alignment in OJ is better characterized as a case of *Differential Subject Marking* (DSM) (de Hoop & de Swart 2009). Second, the distinctive object movement in nominalized clauses is a consequence of Alexiadou and Anagnostopoulou's (2001) *Subject-in-Situ Generalization* (SSG), analyzed as a general condition on structural case, which prohibits more than one argument with structural case from remaining inside vP. The SSG account of object movement suggests that OJ *ga* is in fact a structural case, not an inherent case as proposed by Y&W (2009).

This paper is organized as follows: Section 2 overviews the analysis of nominative-genitive conversion in ModJ, focusing on the issue of the transitivity restriction. This section provides a theoretical basis for the analysis of word order and case marking in OJ. In Section 3 we will discuss two types of nominalizations in OJ and compare them with other languages, proposing that the SSG provides a unified account for alignment and word order variations across languages. Section 4 will provide diachronic explanations for the source of object movement.

2. Background

Nominative-genitive conversion in Modern Japanese (ModJ) has received much attention in the generative literature since Harada's (1971, 1976) work. A genitive subject is possible in a relative clause modifying the nominal head (7) and a complement headed by *koto* 'fact' (8).

Modern Japanese (ModJ)

(7) [*kinoo John no/ga katta*] *hon*

yesterday John Gen/Nom bought book

‘The book John bought yesterday’

(8) *Taroo wa* [*kinoo John no/ga kita koto*] *o sira-nai*

Taroo Top yesterday John Gen/Nom came that Acc know-not

‘Taroo does not know that John came yesterday.’

A main issue concerning genitive subject constructions in ModJ is how to account for the so called *transitivity restriction*, which prohibits direct objects from occurring in the structures that have the genitive subject. If the subject is in the nominative form, there is no such restriction. This is illustrated in (9-11).

(9) [*Taroo ga hon o karita*] *hito*

Taroo Nom book Acc borrow person

‘the man from whom Taroo borrowed a book’

(10) **[Taroo no hon o karita] hito*

Taroo Gen book Acc borrow person

‘the man from whom Taroo borrowed a book’

(11) **[hon o_i Taroo no t_i karita] hito*

book Acc Taroo Gen borrow man

As shown in (10-11), genitive is not licensed when the accusative object appears in the same clause. Scrambling of the object (11) does not improve the grammaticality. Watanabe (1996) observes that genitive is licensed in the context where a gapped object involves a *wh*-operator. Example (12) is cited from Watanabe (1996:395).

(12) *John wa* [*Mary no yonda yori*] *takusan-no hon o yonda*

John-Top Mary-Gen read than many Gen book Acc read

‘John read more books than Mary did.’

Watanabe assumes that the comparative deletion clause in (12) involves a null *wh*-operator in parallel to the relative clause (7). Given that comparative deletion clauses have no nominal head, Watanabe proposes that genitive is licensed not by the nominal head, but by *subjunctive C* under *wh*-agreement. To account for the transitivity restriction, Watanabe assumes early minimalism and claims that the genitive subject in Japanese remains in the external argument position within VP in overt syntax. The subject moves to Spec AgrPs to check the case feature at LF. This movement leads to a minimality violation, given that the object also moves to AgrPo to check its case feature at LF. A minimality violation, however, does not arise when the object undergoes A’ movement in overt syntax. (For a technical

detail, see Watanabe 1996:389).

Alexiadou and Anagnostopoulou (2001) (A&A) assume with Watanabe (1996) that the genitive subject in Japanese remains in the base external argument position: Spec, ν P. A&A propose that the transitivity restriction is subsumed under a more general theory of structural Case, formulated as the subject-in-situ generalization (SSG), stated in (13).⁴

(13) *The Subject-in-Situ Generalization* (SSG)

By Spell-out, ν P can contain only one argument with an unchecked Case feature.

(Alexiadou and Anagnostopoulou 2001)

The SSG predicts that more than one DP argument must not be in the position in which they are merged. When the subject remains in Spec, ν P, the object must move out of ν P. Any construction in which both the subject and the object remain in ν P-internal position is unacceptable.⁵ A&A (2001) provide data from a variety of languages such as French, Arabic, English, Icelandic and Greek, and propose that the SSG is a universal principle on structural case features that holds across languages.

Note that unlike Japanese, genitive subjects in Turkish nominalizations display no transitivity restriction; the genitive subject precedes the accusative object in (14).

(14) Turkish (Turkic; Kornfilt 2003)

[(*Bir*)ari-nin bugün cocug-u sok-tug –un]-u duy-du-m

a bee-Gen today child-Acc sting-F.Nom-3sg-Acc hear Past-1sg

‘I heard that the bee/a bee [+specific] stung the child today.’

Miyagawa (2011) assumes with A&A that the transitivity restriction is subsumed under the SSG and offers an analysis of the typological difference between Japanese and Turkish. According to Miyagawa, genitive subject constructions in Turkish differ from those in Japanese with respect to the clausal height where genitive occurs. The genitive subject in Turkish is C-licensed and moves to Spec, TP to check the EPP feature on T. This is because the clause that contains a genitive subject is a full CP. The genitive subject in Japanese, on the other hand, is D-licensed; the genitive fails to move to Spec TP because clausal T in Japanese is *defective*, without C, lacking an EPP feature.

⁴ As shown by A&A, stylistic inversion (SI) in French behaves exactly in parallel to the genitive subject construction in Japanese. SI is disallowed when the VP contains a direct object. On the other hand, when the direct object itself is *wh*-extracted, SI becomes possible again.

⁵ A&A (2001:211) crucially assume that the operation Move is required when case features are checked. In other words, when the accusative case feature is checked by ν , the object necessarily undergoes object shift to Spec, ν P. This departs from Chomsky’s minimalist view (2001) that a structural case feature is a reflex of agreement and is assigned a value under a probe-goal relation. In this paper, I do not go into the theoretical details of the SSG.

Given that the SSG is responsible for a variety of the constructions which involve a full clausal CP, defectiveness in the sense of Miyagawa is not the only possible reason why subjects remain in situ. A crucial difference between Japanese and Turkish is that while genitive case in Japanese has no semantic effects, Turkish has differential subject marking (DSM), associated with specific/non-specific distinction. While subjects marked by genitive are interpreted as specific, those in nominative (that is *zero*-marked) are interpreted as non-specific (Kornfilt 2003, 2009). Turkish has differential object marking (DOM) as well.⁶ Accusative case marks all definite NPs. It also marks indefinite NPs which presuppose the existence of a set of individuals (Enç 1991). As observed by Kornfilt (2003), when the subject is marked nominative and the object is marked accusative, the object must move over the subject, resulting in OSV order. Consider (15-16), cited by Kornfilt (2003).

Turkish (Turkic; Kornfilt 2003)

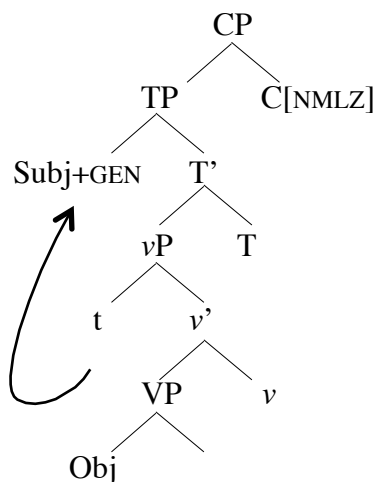
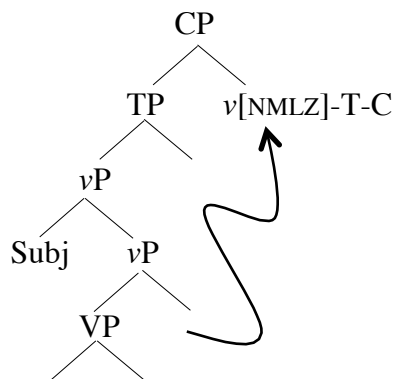
(15) [*cocug-u bugün (bir)ari Ø sok-tug -un*]-u *duy-du-m*
 child-Acc today a bee sting-F.Nom-3sg-Acc hear Past-1sg
 ‘I heard that today bees/a bee [-specific] stung the child.’

(16) *[(*bir)ari Ø cocug-u bugün sok-tug -un*]-u *duy-du-m*
 a bee child-Acc today sting-F.Nom-3sg-Acc hear Past-1sg
 ‘I heard that today bees/a bee [-specific] stung the child.’

The contrast given in (15-16) is accounted for straightforwardly by the SSG. In (14) the subject marked by genitive moves to Spec, TP, and thus preceding the accusative object. The nominative subject, however, remains in situ and it is the accusative object that moves out of *v*P (Kornfilt 2003). A question now arises: if the genitive subject constructions in Turkish have a full CP structure, as proposed by Miyagawa (2011), how is the EPP on T satisfied in (15)? I explore an alternative approach as outlined by A&A (2001). That is, the EPP is a [+D] feature in T, and this feature is checked in two different ways: It can be checked by a Spec-Head relation (17a) by moving a subject to Spec TP, or can be satisfied by head movement of $v_{[+NML]}$ to T (17b). Given that the nominal feature on *v* raises to check the D feature on T, the subject need not move to Spec, TP. For present purposes, I propose that nominalization types are determined by the base position in which the nominal feature originates within the extended projection (C, T, *v*) of VP.

⁶ DOM is independent of alignment. It is highly regular phenomenon in languages where it occurs and is often associated with the Animate/Inanimate or Specific/Non-Specific distinctions. Spanish, Romanian, Turkish, Persian and Hindi are frequently mentioned representative cases of DOM (Aissen 2003).

(17) a. C-type Nominalization

b. *v*-type Nominalization

Nominalization associated with genitive in Turkish is a C-type nominalization. It displays no transitivity restriction as shown in (14). The genitive subject moves to Spec TP and the object remains within vP. In contrast, nominalization associated with genitive in Japanese is *v*-type nominalization. The subject remains in Spec, vP and the nominal feature in *v* raises to T to check the EPP feature. The SSG forces the object to move out of vP.

Given the mechanism proposed in this section, the following sections discuss two types of nominalization structures in OJ. Nominalization associated with OJ *no* is a C-type nominalization, exactly in parallel to Turkish. In contrast, nominalization associated with OJ *ga* is a *v*-type nominalization which patterns like active alignment (see Figure 1). I will argue that the SSG provides a unified account for complex word order patterns associated with the two types of nominalization structures.

3. Object Movement

3.1 Differential Object Marking

Within the past few decades, various proposals have been made about *wo*-marked objects and zero-marked objects of OJ (Motohashi 1989, Miyagawa 1989, 2012, Yanagida 2006, Kinsui 1993, 2011, Frellesvig, Horn & Yanagida 2015). Motohashi (1989) observes that *wo* in OJ appears with definite/referential nouns, while non-referential indefinite nouns are morphologically unmarked. Examples (18-19) show this contrast.

- (18) *sigeyama no tanipye ni opuru yamabuki wo ...pikiuwete* (MYS 4185)
 wooden mountain Gen valley Loc grow yellow.rose Obj transplant
 ‘transplant the yellow-roses that grow about the valley of the wooden mountain...’

- (19) *pitomoto no nadesikwo* \emptyset *uwe-si* *sono kokoro* (MYS 4070)
 one Gen fringed pink plant-Past that heart
 ‘the heart that planted a flowering pink’

Y&W (2009) argue that the contrast between *wo*-marked objects and zero-marked objects is attributable to specificity, not to definiteness, since *wh* pronouns can be marked by *wo*. The following two examples are taken from Y&W (2008).

- (20) *sipo pwina-ba* *tamamo* *kari tum-ye* *ipye no imwo ga*
 tide recede-if seaweed cut gather-Imp house Gen wife Agt
pamaduto kop-aba ***nani wo*** *simyesa-mu?* (MYS 360)
 shore.gift want-if what Obj proffer-Mod.Adn
 ‘If the tide has gone out, cut and gather the precious seaweed! If my wife at home asks for gifts from the shore, which (other) shall I offer her?’

- (21) *maki no itatwo wo osi piraki siweya ide kone noti pa*
 wood Gen door Obj push open damn out come after Top
nani \emptyset *se-mu?* (MYS 2519)
 what do-Mod.Adn

‘Pushing open the door (I say) “Come out, dammit!” Then what will (I) do?’

In (20), the set of items that the speaker might offer his wife is defined as *pamadutwo* ‘gifts from the shore’. In this case *nani wo* ‘what/which Obj’ picks out specific items from that set. In (21), in contrast, the bare *wh* pronoun is non-specific; the universe of things the speaker might do is completely undefined in previous discourse. Frellesvig, Horn & Yanagida (2015) extend Y&W’s (2009) view and argue that the two classes of objects fit into a pattern of differential object marking (DOM) in parallel to DOM in Turkish.

3.2 Word order in nominalizations with *ga*

As discussed extensively in Yanagida (2006, 2007), and Y&W (2009), OJ has a distinctive word order restriction. The object marked by *wo* precedes the subject marked by *ga*, as shown in (22). Given that the basic word order in Japanese is SOV, the *wo*-marked objects in (22) move over the subject, resulting in OSV order. The object movement differs crucially from scrambling in that it is an instance of obligatory movement since Mod J canonical order [Subject *ga* Object *wo* V] is not found in the OJ corpus (Yanagida 2006).

(22) [OSV order]

- a. *pana tatibana wo wotomyera ga tama nuku made* (MYS 4166)
orange blossom Obj maidens Agt bead thread-Adn -CONJ
'The maidens thread the orange blossoms on their beads...'
- b. *kusaka no yama wo yupugure-ni waga kwoye kure-ba* (MYS 1428)
Kusaka Gen mountain Obj twilight-Loc I.Agt cross come-Conj
'when I come crossing Kusaka Mountain in the twilight'

In contrast, the objects that follow the subject are without exception zero-marked non-branching noun heads that appear immediately adjacent to the verb. This is exemplified in (23).

(23) [SOV order]

- a. [*Saywopimye no kwo ga pire Ø puri-si*] *yama no na* (MYS 868)
Sayohime Gen child Agt scarf wave-Past.Adn hill Gen name
'the name of the hill where Sayohime waved a scarf'
- b. *kanasiki kwo-ro ga ninwo Ø pos-aru kamo* (MYS 3351)
sad child-DIM AGT cloth hang out-ADN Q
'The sad child has hung out a piece of cloth.' (Eastern Old Japanese)

Yanagida (2007) and Y&W (2009) argue that the *zero*-marked nouns, such as *pire* 'scarf' and *ninwo* 'cloth' (23a-b), are syntactically incorporated into the verb.⁷ As demonstrated extensively by Baker (1988), noun incorporation, which is widely observed in non-accusative languages, is a detransitivizing process on a par with antipassives in that both involve a shift in valency, creating a derived intransitive. Incorporated objects need not be assigned structural accusative case. That is, OJ patterns like syntactically ergative languages in that the subject marked by *ga* is licensed by agentive *v*, and remains in Spec *vP*; the object is not assigned structural accusative within *vP*. There are two mechanisms to satisfy the case filter: object movement and noun incorporation. In section 3.4, I will explore the possibility that object movement is independent of alignment, but rather it is uniformly accounted for by the universal principle of case, stated as the SSG (13).

3.3 Topicalization

Another important discovery with respect to the word order restriction in OJ is made by Nomura (1993), who observes that in so-called *Kakari* *musubi* constructions in OJ, *wh*/focus

⁷ ModJ does not have noun incorporation in the strict sense. The patterns of incorporation discussed by Kageyama (1980) such as *kosi o kakeru* vs. *kosikakeru*, *tema o toru* vs. *temadoru* are not productive. These expressions are possibly analyzable as lexical compounds.

phrases marked by *kakari* particle, such as XP *ka/ya/zo*, necessarily precede the subject marked by *ga/no*, while this restriction is lost in Early Middle Japanese (800–1200).

(24) *izuku yu ka imo ga irikite yume ni mie-turu* (MYS 3117)
 where from Q wife Agt come.in dream Loc appear-Asp.Adn
 ‘From where did my wife come and appear in my dream?’

(25) *patuse no kapa pa ura na-mi ka pune no yori-ko-nu* (MYS 3225)
 Hatsuse Gen river Top shore not-because Q boat Gen come.near-not
 ‘Is it because Hatsuse River has no shore that no boat comes near?’

Assuming the word order restriction observed by Nomura, Watanabe (2002) argues that *wh/focus* phrases in OJ move overtly to FocP within CP layer. Following Rizzi’s (1997) split C system, Watanabe suggests that examples like (24-25) have the structure in (26) (Watanabe 2002:183).

(26) [_{TopP} (DP=*pa*) [_{FocP} DP=*ka* [_{IP} DP=*no/ga* [_{VP}...]]]]

Yanagida (2007:183) provides the quantitative data for OSV order in OJ. Out of 65 tokens of OSV, 12 occur with a focus/*wh*-phrase. In 10 out of 12 tokens, *wo*-marked objects appear to the left of the focus phrase; that is, TopP in (26). Given that the focus/*wh*-phrase moves to FocP, *wo*-marked objects move to TopP within CP layer. This is illustrated in (27).

(27) [_{TopP} DP_i=*wo* [_{FocP} Wh/Focus=*ka* [_{TP} [_{VP} t_i [_{VP} DP=*ga* ...t_i...VNMLZ]]]]]

a. *aki yama wo ikani ka kimi ga pitori kwoyu-ramu* (MYS 106)
 autumn mountain Obj how Q you Agt alone cross-Aux
 ‘How do you cross the autumn mountain alone?’

b. *ware wo yami ni ya imo ga kwop-i-tutu aru ram-u?* (MYS 3669)
 I Obj dark in Q wife Agt longing.for be PConj-Adn
 ‘Would my wife be longing for me in the dark?’

c. *waga te wo koyopi mo ka tono no wakugo ga torite nagek-amu* (MYS 3459)
 my hand Obj tonight also Q lord Gen young Agt take mourn-Aux
 ‘Will the young lord take my hand and mourn tonight as well?’

Y&W (2009) propose that *wo*-marked objects move to AspectP above *v*P’s with the feature [\pm transitive]. Here I simply assume that they first undergo Object Shift (OS) to the outer edge of *v*P, where they receive a language-specific interpretation (i.e. specificity/definiteness) (cf. Chomsky 2001). *Wo*-marked objects then move further to the left peripheral position within the domain of CP.

Note importantly that *wo*-marked objects can remain inside *v*P, when the subject is marked by *no*, as shown in (28) (Yanagida 2006).

- (28) a. *parusame no yokuredo ware wo nurasu* (MYS 1697)
 spring rain Gen avoid-though 1P Obj drench
 ‘The spring rain, however hard I may shun it, it drenches me.’
- b. *pito no topona wo tatu beki-mono ka* (MYS 2772)
 people Gen rumor Obj spread should Q
 ‘Should people spread rumors?’
- c. *ipyebito no idura-to ware wo topa-ba ikani ipamu?* (MYS 3689)
 family Gen where-Comp 1P Obj ask-if how say
 ‘If your family should ask me where you are now, what should I reply to them?’
- d. *misagwo wiru su ni wiru pune no yupusipo wo matu-ramu*
 osprey be nest Loc be ship Gen evening tide Obj wait-Aux
ywori pa ware-koso masare. (MYS 2831)
 than Top I Foc more
 ‘I am waiting more than a ship that is driven against the seashore where some ospreys are feeding, waiting for the evening tide to flow.’

Since, as observed by Nomura (1993), *no*-marked subjects necessarily follow a focus/*wh*-phrase, as shown in (25), it follows that (29) have the structure in which the *no*-marked subject moves to Spec, TP.

- (29) [_{FocP} Wh/Foc [_{TP} Subject=*no* [_{vP} Object=*wo* V]]]
- a. *soko mo ka pito no wa wo koto nasa-mu*
 that Foc people-Gen I Obj say do-Aux
 ‘People say this and that of me.’ (MYS 512, 1329,1376)
- b. *nani-si-kamo wago opokimi no ..kimi ga asamiya wo wasure-tamapu-ya?*
 how Foc Q my lord Gen lord-Gen Asamiya Obj forget-Hon-Prt
 ‘How could the Princess forget the Prince?’ (MYS 196)

To summarize, the above observations reveal that OJ has strict word order restrictions. The two types of subjects, one marked by *ga* and the other marked by *no*, appear in different structural positions, licensed by *v* and C respectively. The word order inside nominalized clauses follows from the SSG. Since subjects marked by *ga* remain in Spec, *vP*, the SSG forces the object to be externalized, resulting in OSV.

3.4 Object movement in nominal based split languages

Although OSV dominant word order is extremely rare crosslinguistically, the typological literature suggests that there is a strong correlation between OSV and ergative alignment.

Hasplemath et al. (2016) identify four OSV languages in their typological database. Wik Ngathana, Tobati, Nadëb Kxoe. Whitman (2008) points out that the OSV status of Tobati is disputed, but that the other two, Nadëb and Wik Ngathana, are identified in the literature as ergative. Furthermore, Northwest Iranian Vafsi is a split ergative language. Haig (2008:188) observes that the accusative pattern of Vafsi displays SOV order, and the ergative pattern OSV. In this section, we discuss two attested languages with object movement: Dyirbal (Australian) and Kuikuro (Carib).

Dixon (1994:130) observes that in Dyirbal, the ergative pattern has OSV (30-31), whereas the nominative pattern has SOV (32). Dyirbal is a nominal based split ergative language: while common nouns display an ergative-absolutive pattern, pronouns a nominative-accusative pattern.

Dyirbal (Australian; Dixon 1994)

(30) *ngana-na nguma-nggu bura-n*

we-Acc father-Erg see-Nonfut

‘Father saw us.’

(31) *yabu nguma-nggu bura-n*

mother(Abs) father-Erg see-Nonfut

‘Father saw mother.’

(32) *ngana nguma bura-n*

we(Nom) father(Abs) see-Nonfut

‘we saw father.’

Dixon (1972:137) observes that “in Dyirbal, every sentence must contain a topic NP.” The object is a topic in a clause with an ergative subject, and the subject is a topic when it is nominative.⁸ This is represented in (33).

(33) a. Subject is topic. $S_i = \text{Abs} \quad [_{\text{VP}} t_i \quad V]$ (intransitive)

b. Object is topic. $O_i = \text{Abs/Acc} \quad [_{\text{VP}} S = \text{Erg} \quad t_i \quad V]$ (transitive)

A widely observed feature of syntactically ergative languages, such as Dyirbal, is that the subject of intransitive verbs (S) and the object of transitive verbs (O) move to the subject position (Spec, TP), associated with the same absolutive case and licensing mechanism (Bittner and Hale 1996, Manning 1995, among many others). Object movement, however, is not the property of absolutive DP. As we see in Dyirbal (30-31), the object moves to a clause initial position, regardless of whether it is absolutive (unmarked) or accusative (case marked).

⁸ The status of absolutive has been called into question, and it has been argued that it should be treated to be the same as nominative (cf. Bittner and Hale 1996, Legate 2008 among many others)

Object movement is also widely found in Cariban languages like Kuikúro and Panare, as discussed extensively by Franchetto (1990) and Gildea (1998, 2000). Cariban languages manifest ergativity in case/agreement marking and word order. Kuikuro, for example, displays OVS/SV word order, as shown in (34-35). The subjects of transitive verbs take ergative *-heke* (34), while the subjects of intransitive verbs are marked *zero* (35).

Kuikúro

(34) [O V] Aux A
Kuk-aki-sa Ø ta-laigo leha karaiha-heke

Inc-word-Rel hear-Fut Asp non-indian-Erg

‘The non-indian will hear our words.’

(35) [S V]

tolonkgugu itsuN-tagü

little.bird(s) noise-Asp

‘The bird(s) is/are singing.’

Carib languages have a construction labelled the “AV ergative” system by Gildea (1998: 190-6, 2000: 85-88), originally referred to as “De-ergative” by Franchetto (1990). (Below I use the term de-ergative for this construction.) In this system, the object surfaces outside the *vP* containing the external argument and the verb. The agent does not take the ergative case *heke*, but instead the deergative prefix *ñ-* is attached to the verb, as shown in (36).

The Kuikúro De-ergative construction (Franchetto 1990:413)

(36) [_{VP} A V] O
Ku-ñ-api-rái ñéle

1/2-Derg-hit-Int he

‘We shall hit him.’

Like Dyirbal, the de-ergative pattern in Carib can also be characterized as movement of the object, but not as movement of the absolutive DP. Gildea (2000: 98) cites constituency tests showing that O in this construction is external to the verbal projection containing A and the verb. According to Franchetto (1990), the de-ergative pattern as in (36) is sensitive to the nominal hierarchy and is obligatory in cleft constructions, relative clauses, and content questions in which the direct object is questioned. This pattern is obligatory for transitive intentional mood verbs in which the subject is first person singular or inclusive; however, if the transitive subject is first person exclusive or second person there is alternation between an ergative and a deergative pattern. Finally, when the transitive subject is third person, de-ergativization may not occur. The basic properties of this structure are exactly parallel to the active property and OSV word order of nominalized clauses in OJ.

3.5 Parametrization

Ergative/active patterns are typologically diverse. The complexities of syntactic behavior makes it difficult to find a single coherent syntactic implementation of languages of this type. I hypothesize that the DSM languages with object movement discussed in section 3.4 share the following properties common to nominalization associated with *ga* in OJ:

- (37) a. The realization of case is sensitive to the nominal hierarchy.
b. The subjects of transitive verbs remain in Spec *v*P.
c. DSM is associated with nominalized *v*.⁹

An interesting theoretical question arises: What is the motivation for the object to move outside *v*P in these languages? A plausible hypothesis is that object movement in non-accusative languages is accounted for by the SSG. The object is externalized because the agentive subject remains in Spec *v*P. Perhaps the strongest challenge to the application of the SSG to non-accusative languages is that the SSG is meant to be the condition for arguments with structural case. A&A (2001) indicate that PP arguments with inherent case are exempt from the SSG. If all ergative (or active) case is inherent, as is widely assumed, the SSG would be inapplicable to ergative languages. I propose that object movement in the DSM languages discussed above provide evidence that ergative (active) case is an abstract case, rather than an inherent case, and hence it is subject to the SSG.¹⁰

As we discussed in section 2, the SSG provides another diagnostic for parametrization, in terms of the position to which the nominal feature originates within the extended projection (*v* or C) of VP. Nominalization associated with genitive in Turkish is a C-type nominalization, while nominalization associated with genitive in ModJ is *v*-type nominalization. Now, including non-accusative languages, parametrization of the height of the nominal feature is represented in Table 1.

⁹ Gildea (1998, 2000) argues that alignment and word order patterns in Carib languages are historically derived from distinct types of nominalization (see section 4). The historical origin of alignment pattern in Dyirbal is unknown. Bittner and Hale (1996), however, indicate that verbs in ergative languages like Dyirbal have noun properties, which fail to assign accusative case to the object, which forces the object to move to Spec IP to avoid a violation of the case filter, resulting in OSV in Dyirbal.

¹⁰ Note the proposal here does not claim that all ergative/active languages respond to the SSG by moving the internal argument out of *v*P. Rather this may be a point of typological variation related to the origin of ergative case (see section 4). In languages like Hindi, ergative (active) subject may be an inherent case in line with previous analyses (cf. Anad & Nevin 2006, Woolford 2009).

Clause type	Accusative ←————→ Non-accusative					
	Turkish	OJ	ModJ	OJ	Carib	Dyirbal
		<i>no</i>	<i>no</i>	<i>ga</i>		
The position of the nominal feature	C	C	v	v	v	v

Table 1: The typology of nominalizations

Nominalization associated with genitive *no* in OJ is a C-type nominalization in parallel to Turkish. It displays no transitivity restriction. The genitive subject given in (28) moves to Spec TP and the object that follows it remains within vP in parallel to Turkish.

Nominalization associated with OJ *ga*, on the other hand, is a v-type nominalization in parallel to ModJ *no*. The subject remains in Spec, vP and the nominal feature in v raises to T to check the EPP feature. The accusative object is prevented from occurring inside vP. The SSG forces the object to be externalized to the CP domain, resulting in OSV word order as in (22). Note importantly, that object movement in OJ is an instance of A' movement to the CP layer. ModJ has no *wh*/focus movement to the domain of CP found in OJ. The scrambling of an object does not suffice to avoid an SSG violation, as shown in (11). Table 1 shows that the history of nominalization has undergone a curious fluctuation in Japanese: what used to be a C-type nominalization licensing genitive *no* on subjects in OJ came to be a v-type nominalization, and v-type nominalization with *ga* came to be a main clause with nominative-accusative alignment in ModJ.

So far, we have focused on the synchronic explanations for case marking and OSV order in nominalized clauses. The following final section sets out to explore the diachronic origins of OSV.

4. A Historical Origin for OSV Word Order

The phenomenon of ergativity has been analyzed in the literature from both synchronic and diachronic perspectives. It has been widely accepted that variable alignment patterns are related to the historical origins of ergative case. The ergative case in languages like Hindi is a reanalyzed instrumental or dative case that was innovated after the reinterpretation of passive/participle constructions. Ergative case may originate from genitive through reanalysis of possessive constructions. A number of linguists have proposed that nominalization structures are a diachronic source for variation in alignment and word order, particularly for

languages that show syncretism of agent and genitive marking, like OJ. This approach has come to be known as the *nominalist hypothesis* (cf. Kaufman 2007, 2009).¹¹ Y&W (2009) and Yanagida (2011) suggest that there are close parallels between Gildea’s (1998, 2000) reconstruction of Carib de-ergative patterns, as shown in Kuikúro (36) and the historical sources of the OSV pattern in OJ. Gildea (1998, 2000) claims that alignment and word order variations in Carib languages are byproducts of historical change from different types of biclausal nominalization reanalyzed as monoclausal main structures. He attempts to reconstruct the source of de-ergative pattern (38) in Panare, as object nominalization, selected by the matrix copula (39).

(38) The Panare De-ergative construction (Gildea 2000:86)

[A	V]	O
	<i>yu-noh</i>	<i>pí</i>	<i>ní-a'kama-píti-hpë</i>	<i>mën</i>
	1-grandmother	dead	DeErg-Foc-tell-Iter-Pst	it
	‘My late grandmother told it over and over.’			

(39) a. **Source:** [_{NP} Poss *n*-V-Nmlzer] Copula S

↓ ↓ ↓ ↓

b. **Result:** [_{VP} A **DeErg**-V-T/A] Auxiliary O

(38) at the stage of (39a) would have the meaning ‘this is what my late grandmother told me’. This biclausal source structure containing the copula is reanalyzed as monoclausal (39b): the nominalization is reanalyzed as a verbal projection (VP) containing the external argument (A) and the verb in its base position. The copula is reanalyzed as an auxiliary, and the original subject as the object (O). Gildea’s account shows how reanalysis of a nominalization structure can result in a crosslinguistically marked structure.

Y&W (2009) and Yanagida (2011) argue for the diachronic development of OSV in nominalized clauses, applying Gildea’s (1998, 2000) nominalist hypothesis to alignment and word order in OJ. In the rest of this section, I propose some revisions of our original claims regarding the origin of OSV patterns.

Harris and Campbell (1995) (H&C) argue that focus constructions universally develop out of biclausal cleft constructions. H&C (1995: 161), following Akiba (1978), analyze the origin of *kakari* focus constructions in OJ as clefts. They cited example (40) from Akiba (1978). (Akiba’s transcription of OJ as been modified.)

¹¹ Examples of sources for non-accusative alignment from nominalizations proposed in the literature include Mayan (Bricker 1981), Austronesian (Starosta et al. 1982, Kaufman 2007, 2009, Aldridge to appear), and Cariban (Gildea 1998, 2000), among others). The starting point for such ‘nominalist’ accounts of non-accusative alignment in the case of OJ comes from Miyagawa’s (1989) synchronic treatment of adnominal clauses in OJ.

- (40) a. *tapi no pikari so kokoda teri-taru* (MYS 230)
 torch Gen fire Foc brightly shine-Perf.Adn
 ‘It is the torch fire that is brightly shining.’
- b. *kokoda teri-taru (pa) tapi no pikari so*
 brightly shine-Perf.Adn (Top) torch Gen fire Foc
 ‘What is brightly shining is the torch fire.’

Ohno (1964) originally proposed that the pattern illustrated in (40a) developed from (40b) by simple inversion of the subject and the predicate (see also Ohno 1993). Given that the *kakari* focus particle in clause final position is identical to clause medial position, H&C, following Akiba, suggest that *kakari* particles originated as a verb functioning as the copula ‘be’. Thus, as Akiba’s glosses suggest, the original construction was a cleft.

While *kakari* musubi focus constructions may have their origins in a cleft structure, the OSV pattern cannot be analyzed as clefts, because as discussed in section 3.3, the object always appear in the position preceding the focused constituent. A plausible hypothesis is that the source of OSV structure is an instance of what H&C call *anti-clefts* (H&C 1995:165). H&C suggest that anti-clefts in the dialect of Laz (Kartvelian) have the structure in which the subordinate clause contains the topicalized element and the copula, as illustrated in (41).

Laz (Kartvelian; H&C 1995)

- (41) *mazura-pe-na en, va uc’umess*
 second-PI Nom-Com be Neg he.speak.to.them
 ‘Lit. The others that are, he does not speak to [them].’
 ‘As for the others, he does not speak to them.’

According to H&C, the anti-cleft structure differs from clefts in two respects. First, the highlighted element is a topic rather than focus. Second, in anti-clefts, the copula appears not in the main clause but in the subordinate clause. H&C suggests that the topic construction in the Xopian dialect of Laz (Kartvelian) in (42) has developed out of an anti-cleft construction: the biclausal structure is reanalyzed as a single clause and the copula was reanalyzed as the topic marker *nay*.

Xopian (Laz; Kartvelian; H&C 1995)

- (42) *ia patisaik-nay badis uc’veen*
 that ruler-Top old.man he.speak.him
 ‘As for that ruler, he apparently says to the old man.’

Turning now back to OJ, it is well-known that *wo* has multiple functions. It can mark various phrases other than the objects of transitive clauses. In (43) *wo* marks the adjunct phrase rather than the object in the clause initial topic position.

(43) a. *udi gapa wo pune Ø watase wo to ywobape domo ...* (MYS 1138)

Uji river Top boat send Excl that call though

‘Though I call to send the boat at the Uji River...’

b. *yworu no ime ni wo tugite miye koso...* (MYS 807, 3108)

night Gen dream Loc Top continuously appear Excl

‘(you) will appear in a dream in the darkness of the night.’

Wo has a clause final function (44) below, just like *kakari* focus particles. Tokieda (1954:204) claims that accusative *wo* evolved from this clause-final exclamatory/emphatic particle *wo*.

(44) a. *yami no yo pa kurusiki mono wo* (MYS 1378)

darkness Gen night Top painful thing Excl

‘(Lit.) The darkness of night is something painful.’

b. *kimi ga koto matu ware wo* (MYS 2782)

you Gen word wait I Excl

‘Who is waiting for your word is me!’

Y&W (2009) explore the possibility that the source of *wo* is the existential verb *wor-* ‘exist, sit’ and *wi-* ‘be at, sit’.¹² The sentence-final *wo* may be analyzed as a truncated copula.

Interestingly, as pointed out by Horn Stephen (personal communication), the particle *wo* is cognate with *wo* ‘yes’, used to show agreement.

(45) *ina mo wo mo, posiki manimani yurusu beki ...* (MYS 3796)

no Foc yes Foc want as like forgive Aux

‘(whether I said) yes or no, do as I like, you may forgive me.’

The fact that the copula is cognate with *yes* is not rare crosslinguistically. For example, the copular verb *shì* ‘to be’ in Mandarin, which is believed to originate in pronoun is to emphasize a particular element of the sentence. The copular verb *shì* is also used to give affirmative answers to yes/no questions: *Zhangsan lai ma* ‘Will Zhangsan come?’ *Shì* ‘yes’, in parallel to (45) in OJ.

These cross-linguistic observations make it plausible to hypothesize that *wo* originates as copula. The following is a possible scenario for the development of *wo* as accusative.

¹² Diachronically, copulas may originate from verbs expressing location, position, stance or existence. The Bambara copula *bɛ* is homonymous with the verb ‘to live’. The Basque copula *izan* is homonymous with the verb ‘to exist’. In Kawaiisu, the positional predicates *kari* ‘to sit’, *wini* ‘to stand’ and *hari-* ‘to lie’ are often used in the sense of copula ‘be’ (see Pustet 2003).

(46) Source Structure > Monoclausal

Source Stage I:	[NP	<i>wo</i> _[Cop]]	[Poss	V _{NMLZ}]
	↓	↓	↓	↓
Monoclausal Stage II:	[O	<i>wo</i> _[Topic]]	[S _A	V]
Monoclausal Stage III:	[O	<i>wo</i> _[Acc]]	[S _A	V]

The source structure is what H&C labelled as antileft containing the copula *wo*, which appears in the subordinate clause. In stage II, the subordinate clause is reanalyzed as topic prediated of a main nominalized clause containing an agentive subject. In stage III, the topic phrase is reanalyzed as the accusative object of a monoclausal transitive sentence. The historical change from Stage I to II involves the process of clausal simplification outlined by H&C in that biclausal structure is reanalyzed as monoclausal structure. The historical change of *wo* is now shown in (47).

(47) copula > topic > accusative case

From a crosslinguistic point of view, the reanalysis of copula as accusative case, as shown in (47) is not particular to Japanese. König (2008:278) argues that accusative case in Khoe languages has evolved in the similar diachronic process as OJ. Examples (48-49) are cited by König (2008:278).

Khwe (Khoe, Khoisan)

(48) *yì á*

tree Cop

‘It is a tree.’

(49) *yì á tí múùn-á-té*

Tree Obj 1.Sg see-I-Pres

‘I see a tree.’

König (2008) argues that the object marker in Khwe languages has its origin in a copula, and that the copula synchronically functions both as a focus marker and as an object marker, which is similar to the analysis proposed here to OJ *wo* except that an earlier form of OJ accusative *wo* serves as a topic rather than focus.

6. Conclusion

Y&W (2009) argue that nominalizations in Japanese at its oldest attested stage (8th century) show active alignment. This paper proposes that case marking and word order patterns are best analyzed as typologically well attested DSM. DSM parallels DOM exactly with respect to semantic distinctions licensed at different syntactic positions. I propose that the marked [O *wo* S *ga* V pattern] of transitive nominalized clauses identified by Yanagida (2006) and

Y&W (2009) is synchronically an instance of topicalization in which the object moves to the domain of CP, resulting from the SSG proposed by A&A (2001). This paper has proposed that the SSG provides a unified account for object movement in ergative languages, and that it also serves as a diagnostic for nominalization type across languages.

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