## The Syntactic Reconstruction of Alignment and Word Order: The Case of Old Japanese[*]

### Yuko Yanagida (University of Tsukuba)

**Abstract**

Old Japanese (OJ, 8th century) had split alignment, with nominative-accusative alignment in main clauses and active alignment in nominalized clauses. A number of linguists have proposed nominalization structures as a diachronic source for variation in alignment and word order, particularly for languages that show syncretism of agent and genitive marking, like OJ. This paper applies the so-called 'nominalist' hypothesis (cf. Kaufman 2009) to OJ alignment and word order, taking as its main model Gildea's (1998, 2000) reconstruction of Proto-Carib syntax. The paper shows that the two major OJ clause types fit into a larger cross-linguistic pattern: specifically, the main and nominalized clause types originate as two distinct nominal constructions selected by a copular verb. Main clauses originate as an action nominalization pattern, while the OJ adnominal (and related [+N]) patterns with genitive subjects originate as object nominalizations. These biclausal source structures were reanalyzed prior to OJ as monoclausal, following the process of 'clausal simplification' outlined by Harris and Campbell (1995).

## 1. Introduction

This paper proposes diachronic sources for the two types of clauses traditionally labeled as *shûsi* 'conclusive' and *rentai* 'adnominal' clauses in Old Japanese (OJ, 8th century). I retain these traditional labels for descriptive purposes. Conclusive and adnominal clauses are marked by distinctive endings on verbs, adjectives and auxiliaries, but they also display different alignment and word order. Conclusive clauses show nominative-accusative

alignment while adnominal clauses show non-accusative active alignment.

This paper attempts to reconstruct the sources of these two patterns in pre-OJ. While some linguists, such as Lightfoot (1979), express strong doubts about the possibility of syntactic reconstruction, others, such as Harris and Campbell (1995), argue for the possibility of reconstructing pervasive syntactic patterns. Even from a standpoint such as Lightfoot's, despite the discontinuity inherent in the acquisition process, we expect to find new syntactic patterns to be relatable to the grammars of previous generations by the basic constraint of learnability. The view that there are general and universal tendencies which hold across languages is of particular importance for syntactic reconstruction, because hypotheses about tendencies of syntactic change provide a basis for reconstructing proto-grammars, just as their counterparts in phonology do in the case of phonological reconstruction. The approach in this paper is based on what has come to be known as the 'nominalist hypothesis'(cf. Kaufman 2007, 2009) for languages with co-existing alignment patterns that give evidence for a source from nominalizations, such as genitive/agentive case marking syncretism. The nominalist hypothesis explains alignment and word order variation within a single language by deriving them from distinct types of nominalizations. Kaufman (2009) proposes that various voice systems found in Austronesian languages originate from nominal predicates; thus in Tagalog, for example, the agent voice used for 'the cat eats a rat' originates from an agent nominalization predicated on the subject, with an original structure of the form 'the cat is the eater of a rat'. Likewise, patient voice originates from an object nominalization of the form 'the rat was the eaten one of the cat'. Gildea (1998, 2000) proposes a similar analysis for Proto-Carib. He claims that alignment and word order patterns in Carib languages originate as reanalyzed nominalizations. In this paper, I focus on parallelisms between Gildea's scenario for proto-Carib and the historical sources of the split alignment properties in OJ. Like their Carib counterparts, I propose that the two alignment patterns in OJ are derived from nominal constructions selected by a copular verb. Prior to OJ, the biclausal source structures are reanalyzed as monoclausal, following the process of 'simplification' as outlined by Harris and Campbell (1995).

The paper is organized as follows. Section 2 discusses alignment and word order patterns in adnominal and conclusive clauses in OJ. Section 3 reviews the 'nominalist' hypothesis for a syntactic reconstruction of Carib languages proposed by Gildea (1998, 2000). In section 4, I argue that the two types of alignment patterns are derived from distinct types of nominalization parallel to those proposed for Carib languages.

## 2. Alignment Patterns in Old Japanese Adnominal vs. Conclusive clauses[1]

In modern Japanese (ModJ), the subject is marked by the nominative marker *ga* and the object is marked by the accusative case *o*, as shown in (1).

(1)   a.  *Taroo-**ga** hon-o katta*
           Taroo-NOM book-ACC bought
           'Taroo bought a book.'

        b.  *Taroo-**ga** naita*
           Taroo-NOM cried
           'Taroo cried.'

        c.  *Hana-**ga** sai-ta*
           flower-NOM bloom-PST
           'Flowers bloomed.'

ModJ *ga*, the descendant of the OJ genitive, is unarguably a nominative case marker: it marks the subject of both transitive and intransitive verbs.

In OJ, there are two major clause types. Conclusive clauses are morphologically realized as V-*u*, with a different set of endings on adjectives and auxiliaries. Conclusive endings appear in main clauses and the complements of cognitive/speech verbs such as *ip-* 'say' or *omop-* 'think'. Adnominal verbs are morphologically realized as V–*ru*, again with distinct forms for adjectives and auxiliaries. Several additional patterns, in particular a conditional form and a nominalized form in -*aku* , are derived from the adnominal and share its syntactic properties, in particular genitive subjects. The conclusive and adnominal patterns carry no semantic implications of tense, voice, or mood, etc; they differ only in their morphological shape, their syntactic function, and their internal syntax, which I discuss below.

Agentive subjcts of adnominal predicates are marked by the genitive case marker *ga*, while the subject of conclusive predicates never appears with *ga*. Yanagida (2007b) shows that these two types of clauses display different alignment and word order (see also Yanagida and Whitman 2009). Conclusive clauses appear with basic SOV order and show nominative-accusative alignment. Adnominal clauses, on the other hand, appear with OSV

---

[1] List of abbreviations for Japanese glosses: ACC: Accusative, ACT: Active case, ADN: Adnominal, AUX: Auxiliary verbs, CONC: Conclusive, COP: Copula, DAT: Dative, EXCL: Exclamative, FOC: Focus, GEN: Genitive, IMP: Imperative, INACT: Inactive case, INF: Infinitive, LOC: Locative, NOM: Nominative, OBJ: Object marker, PL: Plural, PST: Past, Q: Question, TOP: Topic.

order and show active alignment. OJ Adnominal subject marking exhibits a case syncretism found in many active languages, between genitive and active case.

## 2.1 Adnominal Clauses

The adnominal is used for relative clauses as in (2a), nominalized clauses (2b), and a main clause focus construction traditionally labeled *kakarimusubi* (2c).[2]

(2)  a.  [*Wa-ga seko-**ga** motomu-**ru**] *omo-ni ika-masi mono wo*     (MY 2926)
         I-GEN lord-ACT ask-ADN nurse-DAT go-AUX EXCL be
         'I would go as the wet nurse that my lord asks for.'
     b.  [*Mizu-no tama-ni nita-**ru***]         *mimu*         (MY 3837)
         water-GEN pearl-DAT resember-ADN    see
         '(I) see water resembles a pearl'
     c.  *Tuki-wo-ya kimi-ga mimaku pori su-**ru***         (MY 984)
         moon-OBJ-FOC you-ACT see want do-ADN
         'Do you want to see the moon?'

Adnominal clauses in OJ have the distribution of [+N] categories. Like NPs, they may serve as subject or object of the clause, and be followed by case markers. Since Konoshima (1962), it has been proposed by a number of Japanese grammarians that the nominalizing function of the adnominal form was primary, and its NP modifying function secondary. From a typological perspective, syncretism of nominalizing and adnominal functions is common. As described by Matisoff (1972), DeLancey (1986) and many others, in Tibeto-Burman languages, nominalization of a clause functions as a dependent clause modifying the NP. In languages of this type, relative clauses may be simply dependent or appositive NPs. Nominalized clauses also function as independent main clauses in languages like Dolakha Newar and Manange (cf. Matisoff 1972). Like OJ (2c), Genetti (2007:400-403) describes these as focus constructions.

   Yanagida (2007b) argues that adnominal clauses display active alignment. The genitive *ga* patterns like active case, marking the subject (A) of active intransitives (typically unergatives) and transitives. The subject (S) of inactive intransitives (typically unaccusatives) is zero-marked, as shown in (3a-b).

---

[2]  My data is taken from the *Man'yôshû* (compiled mid-8th century), based primarily on Yoshimura's electronic text as well as the editions by Nakanishi (1978-1983), Kojima et al. (1995) and Satake et al. (2002).

(3) a. [*pisaki*-Ø<sub>S</sub> *opu-ru*]    *kiyoki  kapara-ni*           (MY 925)

      catalpa grow-ADN    clear    riverbank-on

      'on the banks of the clear river where catalpas grow'

b. [*paru kasumi*-Ø<sub>S</sub> *nagaru-ru*]    *nape-ni*           (MY 1821)

      spring haze        flow-ADN    time-LOC

      'at the time when spring haze flows'

The inanimate subject of intransitive verbs as in (3a-b) does not appear with *ga*. The choice of active case depends not only on the semantics of the predicate but also on the semantics of the DP; active case marks DPs higher on Silverstein's Nominal Hierarchy.

(4) **The Nominal Hierarchy** (Silverstein 1976)

    pronouns        >    proper nouns      >    common nouns

    1st, 2nd, 3rd person   >    human   >    animate   >    inanimate

In OJ, first/second person pronouns *wa* 'I' and *na* 'you', which are on the top of the hierarchy, are obligatorily marked by *ga*, that is, *wa-ga and na-ga*. The nominal lower on the hierarchy is morphologically unmarked (or marked by the genitive *no*).[3]

    Japanese has long been considered a strictly dependent-marking language. However, OJ has a fairly rich range of verbal prefixes, most of which have resisted analysis by traditional linguists. Careful analysis shows that two of these verbal prefixes, *i-* and *sa-*, function as active and inactive marker respectively (cf. Yanagida and Whitman 2009). (In section 4.2.2, I propose that the prefix *sa-* originates as an absolutive possessive proclitic attached to the nominalized verb.)

(5) a. *Kume-no wakugo-ga*      ***i**-pure kemu*      *iso-no kusa-no ne*    (MY 435)

      Kume-GEN youth-ACT   I-touch AUX:ADN roch-GEN grass-GEN root

      'the root of the grass that the youth of Kume would have touched.'

b. ***sa**-niturapu    wa-ga   opo kimi*                        (MY 420)

      SA-shine:ADN I-GEN great lord

      'my great lord who shines'

In (5a) *i-* is attached to the active verb, and in (5b) *sa-* to the inactive verb. These two prefixes appear almost exclusively in nominalized clauses.

---

[3]  The other genitive *no* retains this status in Modern Japanese but tends to mark the nominal lower on the nominal hierarchy in OJ. Yanagida and Whitman (2009) suggest that in OJ, while *ga* is an inherent (active) case assigned by *v*, *no* is a structural case assigned by D.

Finally, adnominal clauses show a peculiar word order restriction, first noted by Yanagida (2006). When the object is marked by *wo*, the ancestor of the accusative particle *o*, the object necessarily precedes the external argument, resulting in OAV order, as shown in (2c). The OAV order is crosslinguistically rare. Whitman (2008) observes that Hasplemath et al. (2005) identify four OAV languages in their typological database. The OAV status of two of these, Warao and Tobati, is disputed. The other two, Nadëb and Wik Ngathana, are idenitifed 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 AOV order, and the ergative pattern OAV. From these typological observations, there appears to be a strong correlation between OAV order and non-accusative alignment. In this paper, I explore the view that OAV is reconstructed as object nominalizations selected by a copula.

*2.2 Conclusive Clauses*

In OJ, main declarative clauses and embedded clauses selected by the cognitive/speech verb 'say/tell' appear with the verb in the conclusive form V–*u* (6). The existential verb *ari* 'exist' and some auxiliary verbs take the form V–*i* (7), which is homonymous with the infinitive (*renyô*) ending *-i*.[4]  (In section 4.2.2, I argue that infinitives are the source constructions for conclusive clauses.) As noted earlier, the conclusive form conveys no particular semantic meaning of time, mood, or voice, but only indicates the syntactic status of the clause.

(6)　a.　*Wa-ga opo-kimi-Ø　kuni-Ø　siras-u*　　　　　　　(MY 933)
　　　　　I -GEN great-lord　country　rule-CONC
　　　　　'My great lord rules the country.'

　　　b.　[*Amawotomye-domo-Ø tamamo-Ø　kar-u*]　　　*miy-u*　　(MY 3890)
　　　　　fisher maiden-PL　　seaweed　　gather-CONC appear-CONC
　　　　　'The fishermaidens appear to be gathering seaweed.'

(7)　a.　*Ume-no pana-Ø　　ima sakari nar-i*　　　　　　　(MY 834)
　　　　　Plum-GEN blossom　now at.peak be-CONC
　　　　　'The plum blossoms are now at their peak.'

　　　b.　[*Wa-ga yado-no　ume-Ø　saki-tar-i*]　　　　*to tuge*　　(MY 1011)
　　　　　I-GEN house-GEN plum　bloom-AUX-CONC　that tell
　　　　　'(I) tell (you) that the plum has blossomed at my house'

---

[4]  The use of a conclusive verb in the complement clause of cognitive/speech verbs such as *ipu* 'say' may be an instance of so-called 'main clause phenomena', widely attested cross-linguistically.

Conclusive clauses display nominative-accusative alignment in that S and A pattern together in both morphology and syntax.[5] The transitive subject (A) of a conclusive verb is zero marked as in (6) and never appears with *ga*. The subject S of an intransitive verb, like the object of a transitive verb, is case marked by zero, as shown in (7).

In the following sections, I explore the view that the two alignment patterns discussed above originate from two distinct nominalization constructions. The genitive-agentive alignment in adnominal clauses originates from an object nominalization pattern found in several ergative-type languages. Accusative alignment in conclusive clauses originates from an agent nominalization. There is evidence that both patterns originally occurred with copular verbs, which survive in fossilized form as particles in OJ.

## 3. Nominalizations as Sources for Alignment

### 3.1 General View

A number of linguists have proposed nominalization structures as the diachronic source for non-accusative alignment, particularly for languages that show syncretism of agent and genitive marking, like Old Japanese. Proposals of this sort have been made for Mayan (Bricker 1981), Austronesian (Starosta et al. 1982, Kaufman 2007, 2009), and Cariban (Gildea 1998, 2000), among others. Johns (1992) develops a synchronic account of Inuktitut ergativity based on nominalization. Kaufman (2009) suggests that word order patterns associated with voice systems in Austronesian languages result from reanalyzed nominal constructions. According to Kaufman, various voice forms still retain nominal traits in some languages; diachronically, all clauses are built from a combination of copula and nominal predicate (see also Starosta et al. 1982).[6] Gildea (1998, 2000) proposes a similar analysis for proto-Carib. Carib languages, like Austronesian languages, show a variety of alignment and word order patterns, and according to Gildea, these result from reanalyzed nominalizations.

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. Miyagawa (1989) proposes that while the conclusive form of the verb is truly verbal and assigns abstract case to the object; the adnominal form has nominal properties and is unable

---

[5] Adnominal predicates were reanalyzed as main clause predicates in Late Middle Japanese. Subsequent to this change, the conclusive form was lost in standard Japanese.
[6] Kaufman (2009) indicates that the reconstructed voice paradigm in Proto-Austronesian involves Agent voice *um*, patient voice *-en*, Locative voice *-am* and conveyance voice *si-*.

to assign structural accusative case. In adnominal clauses, the object is assigned morphological case in the form of *wo* in order to avoid a violation of the Case Filter. Since morphological case is normally obligatory in ModJ, Miyagawa proposes that Japanese underwent a change from an abstract to a morphological case marking language. The driving force for this change is the increased use of the adnominal form in main clause functions. From a diachronic perspective, the nominalist hypothesis holds that non-accusative alignment results when nominalized clauses are reanalyzed as main clauses. In section 3.2, I overview what Gildea labels the " [SV/OV] absolutive" VP and the "AV ergative" VP patterns, which are historically derived from two distinct types of nominalization. In section 4, I propose that adnominal predicates parallel the AV ergative VP pattern, while conclusive predicates have a source construction parallel to the [SV/OV] absolutive VP pattern.

*3.2 Gildea's (1998, 2000) 'Nominalist' Account for Proto-Carib*

Gildea (1998, 2000) shows that Carib languages display a variety of alignment and word order patterns, and proposes that these differences are synchronically associated with distinct VP structures, which he labels 1) the [SV/OV] absolutive VP pattern, 2) the [OV] accusative VP pattern, and 3) the [AV] ergative VP pattern. Carib languages like Panare and Kuikúro display "split configurationality," where the absolutive VP type and AV ergative type co-exist in a single language. According to Gildea, these modern VP types are not syntactically derived from base structure in the sense assumed in the generative tradition, but they are historically derived from distinct types of nominalization.

*3.2.1 [SV/OV] Absolutive VP < Action/Agent Nominalization*
Gildea claims that the pattern that he labels [SV/OV] absolutive VP has a source from two original nominalization types, an agent nominalization and an action nominalization. The modern Panare reflex has a structure in which the subject of an intransitive verb (S) and the object of a transitive (O) immediately precede the verb as shown in (8a-b). Gildea cites evidence that the preverbal absolutive (S or O) argument forms a syntactic constituent with the verb. The subject of a transitive (A) appears in post-verbal position (8b):

Panare (Gildea 2000:77)

(8)  a.  [S   V]

      *Ake wë-të-n*

      snake INTR-go PRES

      'The venomous snake goes.'

b.   [O            V]    Aux   A

      *Arakon pétyu'ma-ñe   këh   kën*

      black.money hit-PRES 3COP s/he

      'S/he is gonna hit the monkey.'

The absolutive S/O arguments are cross-referenced by a possessive absolutive clitic when they appear outside VP (e.g., to the right of the verb):

(9)  a.   [**s**-V         ]   Aux   S

      [***y**-u-të-n*      ]  (*këh*) *e'ñapa*

      3S-INTR-go PRES 3COP Panare

      'The Panare goes.'

    b.   [**o**-V          ]   Aux   A   O

      [***y‡**-petyú'ma-ñe*]  (*këh*) *kën arakon*

      3O-hit-PRES     3COP s/he black.money

      'S/he is gonna hit the money.'

Gildea analyzes SV order as involving a synchronic nominalization that occurs in non-finite clauses. VS order occurs in main clauses, which Gildea argues are an innovation. According to Gildea, the reconstructed source for a transitive sentence like (8b) involves an agent nominalization in a predicate nominal clause (10a). The source structure is reanalyzed as monoclausal, as shown in (10b).

(10) a.  **Source:**   [$_{NP}$ Poss   V-Agt.Nmlzer]   Copula      S(Nom)

                ↓         ↓             ↓         ↓

   b.  **Result:**   [$_{VP}$ O(Abs)   V-Pres     ]   Auxiliary:$_A$   A(Nom)

The nominalization is reanalyzed as a verbal projection containing the internal argument (O) and the verb in its base position. The copula is reanalyzed as an auxiliary and the original S nominative as the A. The source is an agent nominalization functioning as a predicate nominal.

    As the Proto-Carib agent nominalization pattern only occurred on transitive verbs, this diachronic source is not available for intransitive clauses. In Panare, the intransitive comes from an action nominalization.

(11) a.  **Source:**   [$_{NP}$ Poss   V-Act.Nmlzer]   Copula      S(Nom)

                ↓         ↓             ↓         ↓

   b.  **Result:**   [$_{VP}$ S$_i$(Abs)   V-Pres   ]   Auxiliary:$_S$   S$_i$ (Nom)

As shown in (11), the action nominalization takes as its possessor the notional S, forming a constituent that can be reanalyzed as a VP; the superordinate S of the copula is coreferential with the S of the nominalized verb in the predicate, creating a second syntactic slot for the same semantic participant. The result, after reanalysis, is that the S can be represented by an absolutive possessive prefix on the verb and by a postverbal noun that controls agreement with the copula auxiliary. An English parallel would be something like *He$_i$ is his$_i$ singing >*
*he sings/is singing/will sing*. Although Panare has the [SV/OV] absolutive VP system, verbal morphology shows a nominative pattern in that the copula auxiliary agrees with A and S, as indicated in (10) and (11).

*3.2.2 AV Ergative < Object Nominalization*
Gildea (1998: 190-6, 2000: 85-88) states that Panare and Kuikúro have a construction which he labels "AV ergative," originally referred to as the "De-ergative system" by Franchetto (1990). Kuikúro manifests ergativity in nominal case marking and word order, that is, the original S of the copula is reanalyzed as A(Erg) in (10b). The ergative case *–heke* marks noun phrases and pronouns. This is shown in (12a-b).

  Kuikúro (Franchetto 1990)

(12)  a.  [   S      V      ]
          *Karaiha Ø kacun-tara*
          non-indian work-CONT
          'The non-indian is working.'

        b.  [ 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.'

Unlike the ergative constructions, the agent of the de-ergative construction (13) does not take *–heke*. Hence, Franchetto concludes that the de-ergative construction reflects nominative rather than ergative alignment.

(13)    [A    V ]      O
       *Ku-ñ-api-rái*     *iŋéle*
       1/2-DERG-hit-INT he
       'We shall hit him.'

In this system, the agent remained within the VP, while the notional object appears outside the VP. In Kuikúru, the de-ergative pattern (13) is obligatory in cleft constructions, relative

clauses, and content questions in which the direct object is questioned. Each of these constructions is based on nominalized verb forms. Gildea attempts to reconstruct the source for this system. (14a) shows the source structure that Gildea (2000: 88) posits for the de-ergative pattern:

(14) a. **Source:** [NP Poss **_n_-V-Nmlzer**] Copula S
            ↓      ↓          ↓    ↓
   b. **Result:** [VP A     DErg-V-T/A] Auxiliary O

Gildea claims that the system originates as an object nominalization selected by the matrix copula; thus, (13), for example, would have the meaning 'he is the one we shall hit'. This source structure is also reanalyzed as monoclausal, as shown in (14b): the nominalization is reanalyzed as a verbal projection 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). According to Franchetto (1990), this system in Kuikúro is sensitive to the nominal hierarchy, as shown in (4). The de-ergative 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-ergativiation may not occur. The basic properties of this structure are exactly parallel to the active property and word order restriction of adnominal clauses in OJ; the object surfaces outside VP containing the external argument and the verb.

Gildea's reconstructed sources for Cariban provide a higher level of detail than earlier 'nominalist' approaches to other languages that derive alignment properties from an original nominalization pattern. This is because he shows distinct outcomes for agent, action, and object nominalizations. In section 4, I propose that OJ adnominal and conclusive clauses have distinct source constructions and show how Gildea's scenario for proto-Carib can be seen to have close parallels in earlier Japanese, explaining the distinct adnominal and conclusive alignment patterns of Old Japanese.


## 4. Reconstructions of Two Alignment Patterns in Old Japanese

In this section, I reconstruct the two alignment patterns in OJ as originating from two distinct nominalization constructions involving a copula, one parallel to Gildea's AV ergative pattern,

and the other [SV/OV] absolute patterns.[7] From a typological perspective, two major sources of copulas are generally recognized in the literature. First, copulas may originate from pronouns, e.g. Mandarin *shí* (Li and Thompson (1977) or Lango *ὲn* (Noonan 1992:146). Second, copulas may originate from verbs expressing location, position, stance or existence (Stassen 1997). The Bambara copula *bɛ* is homonymous with the verb for 'to live'. The Basque copula *izan* is homonymous with the verb for 'to exist'. In Kawaiisu, the positional predicates *karɨ* 'to sit', *wɨnɨ* 'to stand' and *hari-* 'to lie' are often used as copula 'be' (Munro 1990:23). I hypothesize that the two alignment patterns in OJ derive from nominalization patterns that were originally predictated of distinct copulas, whose reflexes are the OJ particles *wo* and *si*. The sources of these two copulas are comparable to the multiple copula languages discussed above. *Wo* is cognate with existential verb *wor-* 'sit, be', and originated as a copula in construction with object nominalizations. *Si* is related to the homonymous OJ third person pronoun *si* 'he/it', and originated as a copula in construction with action nominalizations.

*4.1 Adnominal Transitive < Object Nominalization*

One of the most striking differences between ModJ and OJ is that in OJ, when the object is overtly marked by *wo*, the object necessarily precedes the external argument A.

(15) *Tuki-**wo**-ya    kimi-**ga**    mimaku pori su-ru*            (MY 984)
     moon-OBJ-FOC you-ACT    see     want do-ADN
     'Do you want to see the moon?'

As discussed above, the OAV order is crosslinguistically rare. But it can be observed in non-accusative languages like Dyribal (Dixon 1994) and Vafsi (Haig 2008). In addition to this fact about word order, the particle *wo* differs significantly from its descendent accusative case *o* in that it marks not only direct objects, but all kinds of VP-internal arguments including quasi-adjuncts (cf. Motohashi 1989). In (16a-b) *wo* co-occurs with a locative adjunct marked by *ni*, 'in/at'.

---

[7] Gildea (1998:129) discusses his original view that the *n*-prefixed to the verb in AV ergative VP is an antipassive marker, which is then nominalized. Similarly, Yanagida (2007a) argues that the adnominal form was a vestigial antipassive deriving an intransitive verb. However, given the lack of conclusive evidence for the nominal properties in antipassives, I adopt a view that the adnominal *-ru* has a nominalizing function.

(16) a. *Yoru-no yume-**ni-wo***       *tugite*       *mie-koso*       (MY 807, 3108)

           night-Gen dream-LOC-FOC continuously appear-EXCL

           '(I hope) you will appear in a dream in the darkness of the night.'

     b. *Adisawi-no*   *yapye*   *saku gotoku yatu-yo-**ni-wo***      *imase*       (MY 4448)

           hydrangeas-GEN eight bloom as eight-generations-LOC-FOC live.IMP

           'As hydrangeas have eightfold flowers, so may (my lord) live for eight

           generations.'

Yanagida (2006) argues on the basis of facts like these that *wo* is not the spellout of VP-internal structural accusative case, but functions as a focus particle. That is, (15) synchronically involves focus movement of the object. Tokieda (1954:204) claims that the clause final *wo* as in (17), which is known to have an emphatic reading, is diachronically related to the case particle *wo*.

(17) *Yami-no yo-pa*          *kurusiki mono **wo***            (MY 1378)

      darkness-GEN night-TOP painful thing be

      'The darkness of night is painful.'

    The phenomenon whereby a copula functions as a focus particle is not uncommon cross-linguistically. For example, König (2008) cites the case of Khoe languages, where an original copula is reanalyzed as a focus marker. Interestingly, in a number of Khoe languages, the original copula is further reanalyzed as an object case marker (König 2008:278).

     (18) Copula > Focus marker > Object marker

(18) is a standard instance of grammaticalization: a lexical item is shifted to a grammatical function word (cf. Hopper and Traugott 1993). König (2008) argues that after reanalysis of the copula as an object marker, in some languages, the copula may function synchronically both as a focus and as an object marker. This is illustrated in (19-20):

Khwe (Khoe, Khoisan)

   (19) a. yì  **á**.

        tree COP

        'It is a tree.'

     b. yì  **á**      tí múùn-á-té.

        Tree OBJ 1.SG see-I-PRES

        'I see a tree.'

Khoekhoe (Nama) (Khoe, Khoisan)

(20) a.  ï-p      ke  xám-**à**.
        he-3MS DEC lion-COP
        'He is the lion.'

   b.  ào-p      ke   àrí-p-**á** kè mùû.
       man-3MS DEC dog-M-OBJ PST see
       'The man saw the dog.'

The distinctive word order pattern and the alignment patterns associated with the particle *wo* suggest that Modern Japanese accusative alignment is historically derived from object nominalization, or perhaps more accurately non-subject nominalization. The source construction [ O *wo* A Gen V] pattern is in parallel with what Gildea calls the "AV ergative" pattern in Cariban, which we saw in section 3.2.2. On this analysis, the subject of the superordinate clause is reanalyzed as the object, and the possessor is reanalyzed as the subject (A) of the monoclausal transitive sentence. The A appears inside VP (more specifically, Spec($v$P); the external argument position above VP) and the object appears outside VP.[8]

(21) a. **Source:**  [ S    *wo* (Copula)    [$_{NP}$ Poss V. Nomlzer]]
                       ↓    ↓                    ↓         ↓
    b. **Result:**  [ O    *wo*            [$_{vP}$ A    [$_{VP}$ V  ]]

The etymological source of *wo* has been subject to many analyses, but previous research has failed to point out that the shape of this particle is identical to the existential verb root *wo-*, which appears in the OJ verbs *wor-* 'exist, sit' and *wi-* 'be at, sit'. Yanagida and Whitman (2009) suggest that *wo* originates as the copular verb in a construction similar to the Cariban de-ergative pattern. As in Cariban, the nominalization structure is reanalyzed as a simplex verbal projection.[9] I propose that *wo* underwent the historical shift: copula > focus particle > object case exemplified by the Khoe languages discussed by König (2008). The [S *wo* [$_{NP}$ Poss V]] pattern was first reanalyzed as a monoclausal transitive sentence, and re-interpreted as involving movement of objects to the left periphery; that is, [O-*wo* A V]. This explains why *wo*-marked objects precede the subject at the OJ stage. Learners of Japanese, however,

---

[8]  Gildea (2000) proposes that agent nominalization is reanalyzed as AV ergative VP pattern. But nominalization of this type contains a subject and an auxiliary verb, showing that nominalization targets a category higher than VP.

[9]  The most controversial aspect of (21) is likely to be the hypothesis that earlier Japanese may have had a right branching copula. Note that it is widely observed that a particle copula appears on the left of the complement even in head final languages.

were presented with little evidence for movement of objects, because in Japanese the subject of a transitive clause predominantly appears as a phonologically null *pro*; that is, [O-*wo pro* V]. As a result, movement of objects was eventually lost and *wo*-marked objects came to appear *in-situ*. Subsequent to OJ, *wo* was reanalyzed from a focus marker to an accusative case marker.

*4.2 Conclusive < Action Nominalization*

*4.2.1 Particle Copula si*

This section argues that OJ conclusive clauses attest a pattern parallel to what Gildea calls the [SV/OV] absolutive pattern in Cariban discussed above, and that they have their origins in an action nominalization. The subject of a conclusive clause is either unmarked morphologically or marked by a discourse particle, such as the topic particle *pa* or focus particle *si*. As noted above, OJ *si* is cognate with the third person pronoun *si*. Since third person pronouns are a typologically common source of copulas, it is natural to assume that *si* followed the grammaticalization path, pronoun > copula > focus particle. The copular status of *si* is supported by the existence of a homophonous morpheme –*si*, as the conclusive ending of adjectives as in (22a-b) and auxiliary verbs as in (23a-b). Crucially, the focus particle *si* is used with the conclusive, but never with the adnominal form of a predicate.

(22)  a.  *Tuma-**si**   kana-**si**-mo*                             (MY 3342)
           lover-FOC sad-be.CONC-EXCL
           'My lover is sad.'

      b.  *Aki-no yo-pa        kapa-**si**    sayake-**si***           (MY 324)
           fall-GEN night-TOP river-FOC clear-be.CONC
           'In the fall night, the river is clear.'

(23)  a.  *Nakati-**si**        to.gari s-u           ra-**si***        (MY 3438)
           2nd.brother-FOC bird.hunt do-CONC seem-CONC
           'The second brother seems to be bird hunting.'

      b.  *Ame-**si**   ma     naku  pur-u       ra-**si***           (MY 1585)
           rain-FOC  interval without fall-CONC seem-CONC
           'The rain seems to fall incessantly.'

*Si* can be preceded by both transitive subject A and intransitive subject S; that is, [A *si* OV],

15

[S *si* V], as in (23a-b), but *si* is not preceded by bare objects; that is, \*[O *si* AV].[10]

In the following section, I develop the view that conclusive clauses can be reconstructed in parallel with Gildea's scenario for the [SV/OV] absolutive VP type, which originates as action nominalization. The particle *si* is preceded both by transitive subject A and intransitive S, providing us with a source for the nominative-accusative alignment of OJ conclusive clauses.

*4.2.2 Infinitives as a Nominalization Pattern*

Ohno (1955) proposes that the OJ conclusive form originates from the infinitive form (*renyô-kei*) of the verb in –*i*, combined with the suffix –*u*, and that the infinitive–*i* originates as a nominalizing suffix (see also Ohno 1953, Sakakura 1966 and many others). On this view, the conclusive ending-*u* derives from the ancestor of the verb \**u* 'exist, be in a place'. The historical derivation Ohno proposes is shown in (24).

(24) [Infinitive *i*] +\**u* 'exist' = Conclusive
  *sak-i+u > saku* 'bloom'

I adopt Ohno's hypothesis (24) that infinitives are the source structures for conclusive clauses. As (25) shows, in ModJ, infinitive clauses suffixed by –*i* can take both nominative marked subjects and accusative marked objects.

(25) [*Boku-ga mata sake-o nom-i*]    *tuma-no kigen-ga warui*
  I-NOM again sake-ACC drink-INF wife-GEN mood-NOM bad
  'Because I drank sake again, my wife is in a bad mood.'

The grammaticality of (25) shows that in ModJ, the infinitive ending –*i* can head a full clausal projection. The infinitive form of most verbs can also act as a nominalization:

(26) *kôru* 'freeze' > *kôr-i* 'ice'
  *tutumu* 'wrap' > *tutum-i* 'parcel'
  *uketoru* 'receive' > *uketor-i* 'receipt'

Noun compounding with *i*-nominalizations is restricted to internal arguments (Kageyama 1982, Miyagawa 1989) and is interpreted as an action nominalization:[11]

---

[10] The focus particle *si* does not follow bare objects but can follow XP-*wo* as in *kimi-wo-si matamu* 'wait for you' (MY 1935) in OJ texts, and can occur with the *izen-kei* 'realis form' +*ba* 'since' in conditional clauses. I assume that *wo-si* is a later innovation which emerged as a result of reanalysis of *wo* as accusative case.

[11] As pointed out by Miyagawa (1989:95), there are a few counterexamples in which the

Object-Verb Compound

(27) a. *sakana tur-i* 'fish catching'

  b. *hon-yom-i* 'book reading'

Subect-Verb Compound

(28) a. *ne-agar-i* 'price-hiking'

  b. *ame fur-i* 'rain falling'

Gildea shows that the Panare SV pattern is used in non-finite clauses which are synchronically nominalizations. OJ infinitives also show more properties of nominalizations than their ModJ counterparts. Specifically, OJ bare infinitives, unlike ModJ (25), appear not to license overt external arguments of any kind. Infinitive clauses appear only with the internal argument of unaccusative verbs as in (29a) and the object of transitives as in (29b). In (29b), the agentive subject of the infinitive verb appears outside the *i*-infinitive clause. In almost all cases, the bare theme argument S/O appears immediately adjacent to the verb (for quantitative data, see Yanagida 2007b).

(29) a. [*Tereru paru   pi-ni pibari-$\emptyset_S$ agar-i*]          (MY 4292)

    shine spring day-on swallow rise-INF

    'on a bright spring day, a swallow takes flight and…'

  b. *Urasima-no   ko-ga   [katuwo-$\emptyset_O$ tur-i]   yuku-ni*   (MY 1740)

    Urashima-GEN child-ACT bonito   catch-INF go.ADN-when

    'when the Urashima boy goes out to fish for bonito…'

Given the strict adjacency requirement for bare S/O, Yanagida (2007b) suggests that OJ infinitive bare theme arguments have absolutive status and appear in the underlying internal argument position. The infinitive (29) in OJ is represented as in (30).

(30) Infinitive-*i*

        VP
       ╱╲
     S/O   V+Nomlzer
    *katuwo tur+\*i*

I propose that like their Carib counterparts, the non-finite infinitive VP in (30) is historically

---

transitive subject (A) can occur in *i*-nominal compounds in Modern Japanese, such as *musi-kui* 'Lit. bug's eating X', but these examples are not productive; that is, it is impossible productively to construct similar compounds such as *dobutu-kui* 'animal eating X' or *tori-kui* 'bird's eating X'.
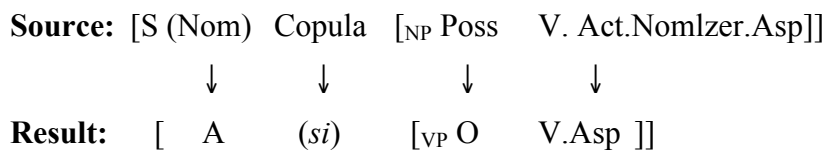
derived from an action nominalization (the interpretation still present in ModJ object-infinitive compounds), and that as in Carib, these function as the source structure for conclusive clauses. The conclusive suffix *-u* may originate as an aspectual morpheme, thus parallel to Gildea's (1998, 2000) reconstruction of Carib VP (10-11), represented as in (31). (Kinsui (2006) in fact argues that existential verbs in OJ convey aspectual meanings.)
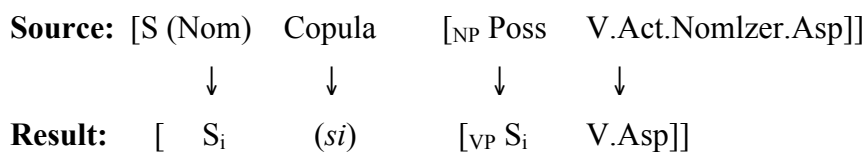
(31)

```
              CopP
             ╱＼
        CoP      VP
                ╱＼
            VP      *u[Aspect]
           ╱＼
    Abs(S/O) V+Nomlzer
    katuwo   tur+*i
```
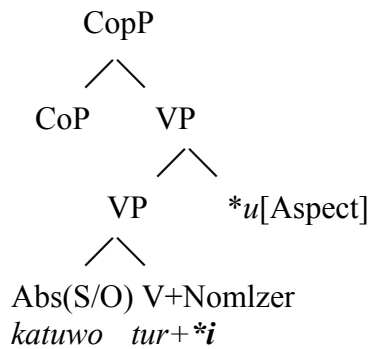
Unlike Panare, the source for OJ conclusive clauses does not seem to have two different sources. Both transitive and intransitives come from action nominalizations, as indicated by the fact that *i*-nominalization denotes an action rather than an agent (27-28). This leads us to the conclusion that the source of conclusive clauses parallels (10-11), as shown in (32-33).

(32) Transitive VP < Action Nominalization

**Source:** [S (Nom)   Copula   [NP Poss   V. Act.Nomlzer.Asp]]
                ↓          ↓          ↓          ↓
**Result:**   [   A      (*si*)    [VP O     V.Asp ]]

(33) Intransitive VP < Action Nominalization

**Source:** [S (Nom)   Copula      [NP Poss   V.Act.Nomlzer.Asp]]
                ↓          ↓          ↓          ↓
**Result:**   [   S$_i$    (*si*)    [VP S$_i$   V.Asp]]

The S/O inside infinitive clauses in OJ are predominantly marked by zero, but we find a few examples in which S/O are marked by the genitive *no*, the S in (34a) and the O in (34b).

(34) a. *Apa yuki-**no**   nipa-ni   purisik-**i**…*                    (MY1663)
        light snow-GEN garden-LOC fall-INF
        'Light snow falls in the garden…'

b. [*Aka goma-no   koyu-ru       umase*]-***no***   *musub-i...*       (MY 530)

    red horses-GEN jump.over-ADN corral-GEN secure-INF

    'to secure the corral where red horses jump over.'

Again, (34) may be an archaic pattern reflecting the original status of infinitives as nominalizations. This may support the view that S and O have absolute status forming an original possessor-possessed relation in *i*-nominalized clauses. The fact that in the 8th century the S/O are rarely marked by the genitive, however, suggests that at the time of OJ, the infinitive-*i* had already been reanalyzed as a verbal form. Reanalysis of the conclusive (derived from the infinitive plus the aspectual auxiliary –*u* on Ohno's hypothesis) as a verbal form occurs even earlier; thus we find no evidence of genitive subjects in conclusive clauses in OJ.

    On the reconstruction proposed here, prior to OJ, the conclusive, formed from infinitive + -*u*, functioned as an action nominalization in predicate position, selected by the copula, reflected as OJ *si.* As discussed above, the subject of both transitive and intransitives precedes the particle *si*, but not the object of transitive verbs. This behavior of *si* is key to the reanalysis of conclusives as having nominative-accusative alignment. The proposed reanalysis is exactly parallel to Gildea's (1998, 2000) derivation of Panare intransitive clauses from action nominalizations in (11).

    As discussed in 2.1, in OJ, the proclitic *sa-*, already vestigial at OJ, marks the subject of intransitives. It is prefixed to a nominalized verb, when the full NP S appears outside VP.

(35) a. [$_{VP}$ *Sugi-no    no-ni   **sa**-wodo-ru*] *kigisi*           (MY 4148)

    cypress-GEN field-in SA-dance-ADN pheasant

    'The pheasant dances in the cypress field.'

b. *Kapa to-ni-pa        ayu.kwo   [$_{VP}$ **sa**-basir-i*]         (MY 475)

    river shallow-in-TOP  sweet.fish    SA-run-INF

    'the young sweetfish running in the river shallows'

In (35a-b) the S outside VP is coreferential with the S of the nominalized verb in the VP, creating a position for *sa*. On both nouns and verbs *sa*- triggers the phonological process known as *rendaku* (realized in OJ as prenasalization) on the following voiceless obstruent. This suggests that the etymological source of *sa* has the shape *saN(V). *Sa* may be related to *si* 's/he it', while *N(V) appears related to possessive *no*.[12]

---

[12] *Rendaku*, 'sequential voicing', occurs in compound words or morphemes wherein the

(36)  a.  *saN(Gen) *koromo* > *sa-goromo* 'his clothes'

     b.  *saN(Gen) fasiri* > *sa-basiri* 'his running'

That is, *sa* may reflect the original absolutive possessive S argument, again parallel to the [SV/OV] absolutive VP type in Carib.

    To summarize, this section argues that (i) the focus particle *si*, which characteristically appears in conclusive clauses, is the original form of the copula selecting an action nominalization, (ii) the infinitive (*renyôkei*) VP originates as a nominalization, and is the source structure of conclusive clauses, and (iii) the prefix *sa* is an absolutive possessive proclitic attached to the predicate when S moves out of VP.


## 5. Summary and Conclusions

Old Japanese (OJ, 8th century) had split alignment, with nominative-accusative alignment in main conclusive clauses and active alignment in adnominal clauses. In this paper, I have suggested that the two types of alignment and word order in OJ originate from two different types of nominal constructions, in parallel with Gildea's (1998, 2000) reconstruction for proto-Carib. The adnominal [O *wo* A Gen V] pattern parallels the Carib AV ergative construction, originally derived from an object nominalization. The OJ object marker *wo*, which may be historically related to the existential verb *wo-*'exist', originated as a copular verb selecting an object nominalization.

    The OJ infinitive VP is similar to what Gildea calls the "[SV/OV] absolutive VP" pattern in Cariban. I have explored the possibility that the pre-OJ infinitive is the source for the nominative-accusative alignment of OJ conclusive clauses. The infinitive functioned as an action nominalization selected by the copula, perhaps reflected as OJ *si*. As in Cariban, absolutive S/O occurs internal to the original nominalization, cross-referenced by an absolutive clitic.


## Texts (Primary Sources)

  Kojima, Noriyuki, Kinosita, Masatake & Tôno, Haruyuki. 1995. *Man'yôshû* (1-4), *Nihon Koten Bungaku Zenshû*. Tokyo: Shogakukan.

---

initial voiceless obstruents of the second elements becomes voiced. There is a general agreement that word medial voiced obstruents were prenasalized in OJ. This process involves an earlier syllable of the form NV and it is suggested that the sequence NV is the earlier form of genitive *no* (cf. Vance 1983).

Nakanishi, Susumu. 1978-1983. *Man'yôshû*. Tokyo: Kodansha Bunko (reprinted in 1978-2005).

Satake, Asahiro, Kudô, Rikio, Ohtani, Masao & Yamazaki Yoshiyuki. 2002. *Man'yôshû Shin Nihon Koten Bungaku Taikei* (1-4). Tokyo: Iwanami.

Yoshimura, Makoto. *Man'yôshû Kensaku*
http://yoshi01.kokugo.edu.yamaguchi-u.ac.jp/manyou/manyou.html


**References**

Bricker, Victoria. 1981. "The Source of the Ergative Split in Yukatek Maya". *Journal of Mayan Linguistics* 2(2): 83-127.

DeLancey, Scott. 1986. "Relativization as nominalization in Tibetan and Newari". Paper presented at the 19th international Conference on Sino-Tibetan Languages and Linguistics, Ohio State University, Columbus.

Dixon, R.M.W. 1994. *Ergativity*. Cambridge: Cambridge University Press.

Donohue, Mark & Søren Wichmann. 2008. *The Typology of Semantic Alignment*. Cambridge: Cambridge University Press.

Franchetto Bruna. 1990. "Ergativity and Nominality in Kuikúro and Other Carib Languages". *Amazonian Linguistics: Studies in Lowland South American Languages*, ed. by Doris L. Payne, 407-428. Austin: University of Texas Press.

Genetti, Carol. 2007. *A Grammar of Dolakha Newar*. Berlin and New York: Mouton de Gruyter.

Gildea, Spike. 1998. *On Reconstructing Grammar*. Oxford: Oxford University Press.

Gildea, Spike. 2000. "On the Genesis of the Verb Phrase in Cariban languages". *Reconstructing Grammar: Comparative Linguistics and Grammaticalization*, ed. by Spike Gildea, 65-106. Amsterdam: John Benjamins.

Haig, Geoffrey. 2008. *Alignment Change in Iranian Languages: A Construction Grammar Approach.* Berlin:Mouton de Gruyer.

Harris, Alice C. & Lyle Campbell. 1995. *Historical Syntax in Cross-Linguistic Perspective*. Cambridge: Cambridge University Press.

Haspelmath, Martin, Matthew S. Dryer, David Gil, and Bernard Comrie (eds.). 2005. *The World Atlas of Language Structures*. Oxford: Oxford University.

Hopper, Paul & Elizabeth Closs Traugott. 1993. *Grammaticalization*, Cambridge: Cambridge University Press.

Johns, Alana. 1992. "Deriving Ergativity". *Linguistic Inquiry* 23.1: 57-87.

Kageyama, Taro. 1982. "Word Formation in Japanese". *Lingua* 57:215-258.

Kaufman, Daniel. 2007. "The Nominalist Hypothesis in Austronesian". Paper given at ZAS Berlin, August 14 2007.

Kaufman, Daniel. 2009. "Austronesian Nominalism and its Consequences: A Tagalog Case study". *Theoretical Linguistics* 35:1-49.

Kinsui, Satoshi. 2006. *Nihongo Sonzai Hyôgen no Rekisi* [A History of Exsitential Expressions in Japanese] Tokyo: Hituzi Shobo.

König, Christa. 2008. *Case in Africa*. Oxford: Oxford University Press.

Konoshima, Tadatoshi. 1962. "Chûkogo ni Okeru Yôgen Rentaikei no Yôhô" [The Use of the Participial Adjective in Medieval Japanese]. *Kokugogaku* 48:102-7.

Li, Charles & Sandra Thompson A. 1977. "A Mechanisim for the Development of Copula Morphemes". *Mechanisms of Syntactic Change*, ed by Charles. Li, 419-443. Austin, London: University of Texas Press.

Lightfoot, David. 1979. *Principles of Diachronic Syntax*. Cambridge: Cambridge University Press.

Matisoff, James. 1972. "Lahu Nominalization, Relativization and Genitivization". *Syntax and Semantics*, ed, by John P. Kimball, 237-257. New York: Academic Press.

Meira Sergio. 2006. "Stative Verbs vs. Nouns in Sateré-Mawé and the Tupian family". *What's in a Verb: Studies in the Verbal Morphology of the Languages of the Americas,* Lot Occasional Series, ed. by Graz'yna J. Rowicka and Eithne B. Carlin, 189-214. Netherlands Graduate School of Linguistics, Netherlands.

Mithun, Marianne. 1991. "Active/Agentive Case Marking and its Motivations". *Language* 67.3: 510-546.

Miyagawa, Sigeru. 1989. *Structure and Case Marking in Japanese. Syntax and semantics* 22. New York: Academic Press.

Motohashi, Tatsushi. 1989. *Case Theory and the History of the Japanese language*. PhD dissertation, University of Arizona.

Munro, Pamela. 1990. *Kawaiisu. A Grammar and Dictionary with Texts*. Berkeley: University of California Press.

Noonan, Michael. 1992. *A Grammar of Lango*. Berlin, New York: Mouton de Gruyter.

Ohno, Susumu. 1953. "Nihongo no Dôshi no Katsuyôkei no Kigen ni tsuite" [On the Origin of the Japanese Verb Conjugations]. *Kokugo to Kokubungaku* 30: 47-56.

Ohno, Susumu. 1955. *Man'yô Jidai no On'in* [The Phonology of the *Man'yô* period]. *Man'yôshû Taisei* 6: 287-332.

Pustet, Regina. 2003. *Copulas: Universals in the Categorization of the Lexicon*. Oxford: Oxford University Press.

Sakakura, Atsuyoshi. 1966. *Gokôsei no Kenkyû* [Research on Word Formation]. Tokyo: Kadokawa Shoten.

Silverstein, Michael. 1976. "Hierarchy of Features and Ergativity". In *Grammatical Categories in Australian languages*, ed. by R.M.W. Dixon, 112-171. Canberra: Australian Institute of Aborignal Studies.

Starosta, Stanley, Andrew, Pawley & Lawrence, Reid. 1982. "The Evolution of Focus in Austronesian". *Papers from the Third International Conference on Austronesian Linguistics*, *Vol. 2: Tracking the Travelers*, *Pacific Linguistics* C-75, 145-170, ed. by S.A. Wurm and L. Carrington.

Stassen, Leon. 1997. *Intransitive Predication*. Oxford: Oxford University Press.

Tokieda, Motoki. 1954. *Nihon Bunpo Bungo Hen* [Old Japanese Grammar]. Tokyo: Iwanami Shoten.

Vance, Timothy J. 1983. "On the Origin of Voicing Alternation in Japanese Consonants". *Journal of the American Oriental Society* 102: 333-341.

Whitman, John 2008. "The Classification of Constituent Order Generalizations and Diachronic Explanation". *Language Universals and Language Change*, ed by Jeff Good, Oxford: Oxford University Press.

Yanagida, Yuko. 2006. "Word Order and Clause Structure in Early Old Japanese". *Journal of East Asian Linguistics* 15: 37-68.

Yanagida, Yuko. 2007a. "Miyagawa's (1989) Exceptions: An Ergative Analysis". *MIT Working Papers in Linguistics* 55: 265-276.

Yanagida, Yuko. 2007b. "Jôdaigo no Nôkakusei ni tsuite" [On Ergativity in Old Japanese]. In *Nihongo no Shubun Genshô* [Main Clause Phenomena in Japanese], ed. by Nobuko Hasegawa, 147-188. Tokyo: Hituzi Shobo.

Yanagida, Yuko & John Whitman. 2009. "Alignment and Word Order in Old Japanese". *Journal of East Asian Linguistics* 18:101-144.