Alignment and word order in Old Japanese

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Abstract   This paper argues that Old Japanese (eighth century) had split align-
ment, with nominative-accusative alignment in main clauses and active alignment in
nominalized clauses. The main arguments for active alignment in nominalized
clause come from *ga*-marking of active subjects and the distribution of two verbal
prefixes: *i*-for active predicates and *sa*- for inactive predicates (cf. Yanagida, In:
Hasegawa (ed.) Nihongo no shubun genshô [Main clause phenomena in Japanese],
2007b). We review the treatment of non-accusative alignment and argue that active
alignment should be analyzed as as a distinct type. We propose a formal analysis of
active alignment in nominalized clauses in Old Japanese. The external argument is
assigned inherent case, spelled out as *ga*, in situ in Spec, *v*. Object arguments are
licensed by several distinct mechanisms, including incorporation (Yanagida, In:
Miyamoto (ed.) MIT Working Papers in Linguistics, 2007a) and case assignment by
a functional head above *v*P. The latter accounts for the distinctive O *wo* S *ga* V
word order of OJ nominalized clauses noted by Yanagida (J. of East Asian
Linguistics, 2006). Inability to assign object case is a property of [nominal] *v*, as
proposed by Miyagawa (Structure and case marking in Japanese. Syntax and
Semantics, vol. 22, 1989). We discuss the diachronic origins of the OJ active
alignment system and point out that it exemplifies a cross-linguistically attested
pattern of non-accusative alignment in clauses that originate from nominalizations.

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1 Introduction

This paper discusses the syntactic alignment of the two major clause types in Old Japanese (OJ, 8th century): conclusive (1) and what we label 'nominalized' clauses, represented by the adnominal examples in (2).

(1) Conclusive:

見度婆　　　　安麻乎等女登母　　　多麻藻可流美由

Mi-watas-e*ba*　　*amawoto*mye-*domo*　*tama*mo　*karu*　*miy-u*.

look-cross-when　fisher maiden-Pl　　　seaweed　gather　appear-Conc

(MY 17/3890)[1]

'When (I) surveyed the scene, the fishermaidens appeared to be gathering seaweed.'

(2) Nominalized (adnominal):

　a. 佐欲比売能故何　　　　　　　比列布利斯夜麻　　　　(MY 5/868)

　　　Saywopimye　*no*　*kwo*　**ga**　*pire*　*puri-si*　　　*yama*

　　　Sayohime　　　Gen　child　Agt　scarf　wave-Pst.Adn　mountain

　　　'the mountain where Sayohime waved her cloth'

　b. 和藝毛古我　　　　蘇弖母志保保尓　　　奈伎志曽母波由

　　　　　　　　　　　　　　　　　　　　　　　　　　　(MY 20/4357)

　　　Wagimokwo　**ga**　*swode*　*mo*　*sipopo ni*　*naki-si*

　　　my.wife　　　Agt　sleeves　even　drenched　cry-Pst.Adn

　　　so　[o]*mopayu*.

　　　Foc　long.for

　　　'I long for my wife, who cried so that even her sleeves were sopping.'

　c. 久木生留　　　　　　清河原尓

　　　pisakwi Ø　opu-*ru*　kiywoki　kapara　　*ni*　　(MY 6 /925)

　　　catalpa　　grow-Adn　clear　　riverbank　on

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

　　　We argue that while conclusive clauses display nominative-accusative alignment, nominalized clauses have active alignment. In active languages, also known as active-stative (Klimov 1974, 1977; Mithun 1991), the sole argument of an intransitive verb shows two distinct patterns: generally speaking, agentive intransitive subjects pattern

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[1] This paper follows in general the transcription and glossing conventions for Old Japanese in Frellesvig and Whitman (2008); however we gloss inflectional endings only when crucial for the argument. Our data is taken from the *Man'yôshû* (My; compiled mid-eighth 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). Examples are cited only when the morpheme crucial for the argument is attested in phono-grammatic form (transcribed in italics); material attested logogrammatically is transcribed in simple text.

with transitive subjects; non-agentive ones pattern with transitive objects. We see such a pattern in (2). In (2a–b) the external argument, that is, the agent of the transitive (2a) and unergative (2b) verbs, is marked by the particle *ga*. In (2c), the patient subject of the unaccusative verb behaves like the object of the transitive verb in (2a): both are morphologically bare and occur immediately adjacent to the verb.

Other nominalized clause types include clauses inflected in the realis (*izenkei*) (3a), irrealis (*mizenkei*) conditionals (3b), and nominal clauses in *–(a)ku* (3c).

(3) a. **Realis (*izenkei*) conditional**
和我乎礼婆　　　　　宇良之保美知久
Wa ga wor-e-ba 　ura *sipo miti ku.* 　　(MY 15/3707)
I 　Agt be-Rls-when bay tide be.full comes
'When I was present the tide was high in the bay.'

b. **Irrealis (*mizenkei*) conditional**
真幸而　　　伊毛我伊波伴伐
masakikute *imo ga ipap-a-ba* 　　　　　(MY 15/3583)
safely 　　wife Agt bless-Irs-if
'if you bless me godspeed'

c. **V-*aku* Nominal form**[2]
乎登賣良我　　　伊米尓都具良久
wotome-ra ga ime 　ni tug-uraku 　　(MY 16/ 4011)
maiden-Pl Agt dream in recount-Noml
'what the maidens recounted in my dream'

Each of the nominalized clause types in (3) share the active alignment properties of adnominal clauses in (2), beginning with marking of the external argument by *ga*.

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

(4) 花 橘 乎　　　　　　孃嬬良我　　　　珠貫麻泥尓
pana **tatibana** *wo* wotomye-*ra* *ga* tama nuku
orange blossom Obj maiden-s 　　Agt bead thread-Adn
made ni 　　　　　　　　　　　　　　　(MY 19/4166)
until Loc
'until the maidens thread the orange blossoms on their beads'

We develop an analysis of OJ nominalized clauses that accounts for the co-occurrence of the active alignment properties in (2) and the [O *wo* S *ga* V] object marking pattern in 4. Nominalized clauses assign inherent case, spelled out as *ga*, to the external argument in its base position in Spec, *v*P. Following a proposal due to Miyagawa (1989), nominalized verbal projections fail to assign accusative case.

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[2] The term "nominal" for nominalized clauses in *–aku* follows Wrona (2008). Wrona shows that *–aku* nominal clauses fulfill many of the subordinate clause roles taken on by adnominal clauses in EMJ texts. For the standard view that the nominal ending is historically derived from the adnominal, see Sect. 6.

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Two case licensing strategies are available for direct objects: they may be assigned case, spelled out as *wo*, in the specifier of a functional projection above *v*P, as in (4); or, if they are non-branching, they may undergo incorporation into the verb (Yanagida 2005, 2007a,b). The second strategy is also available for patient subjects, as is *wo*-marking in a limited context, first pointed out by Vovin (1997) and described in Sect. 5.

The paper is organized as follows. Section 2 reviews previous analyses. Section 3 outlines the typological properties of active alignment, emphasizing that it has important differences from the better known ergative pattern. Section 4 shows that nominalized clauses in OJ share active alignment properties in two specific domains: case marking of subject arguments and prefixal cross-referencing of the subject argument on the verb. This section presents a formal analysis of active alignment in OJ. Section 5 focuses on object marking in nominalized clauses. In Sect. 6 we discuss the diachronic sources of the OJ alignment pattern in a broader typological context. Section 7 concludes the paper.

2 Previous analyses

2.1 Miyagawa (1989) and Miyagawa and Ekida (2003)

Miyagawa (1989) proposes that in OJ and Early Middle Japanese (EMJ henceforth), adnominal and conclusive clauses have distinct case assigning mechanisms. The conclusive form of the verb is truly verbal and assigns abstract case to the object in underlying object position while the adnominal form has nominal properties and has no case assigning ability. In adnominal clauses, the object is assigned overt structural case in the form of *wo* in order to avoid a violation of the Case Filter. Miyagawa's (1989) generalization is stated in (3).

(5)   **Miyagawa's generalization** (1989, p. 206)
       Accusative Case Assignment: The conclusive form assigns abstract case while the case assigning feature of the attributive (=adnominal) form must be manifested overtly as *wo*.

Given that overt object case marking is normally required in modern Japanese, Miyagawa (1989) and Miyagawa and Ekida (2003) propose that Japanese underwent a change from an abstract to a morphological case marking language and that the driving force for this change is the increased use of the adnominal in main clauses. In OJ, nominalized forms including the adnominal are generally restricted to embedded environments (this is exclusively the case for irrealis conditionals and the *–aku* nominalized form); the matrix use of the attributive is predominantly limited to the *kakarimusubi* focus construction (see Whitman 1997 and references cited there). The *kakarimusubi* construction, however, began to break down in EMJ (cf. Hendriks 1998), with the result that adnominal inflection came to be used in main clauses without a *kakari* focus particle and eventually replaced the conclusive in main clauses. Miyagawa (1989) and Miyagawa and Ekida (2003), based

on an extensive survey of EMJ literary texts, argue that the reanalysis of adnominal as a main clause predicate form led to the increased use of object marking with *wo*.

2.2 Kuroda (2007)

Kuroda (2007) proposes that the diachronic difference between modern and earlier Japanese is accounted for by an Agreement Parameter (cf. Kuroda 1988): agreement is forced in earlier Japanese but not in the modern language. In a forced-agreement language, movement is triggered by agreement-inducing features, and optionality does not come into play. Kuroda proposes that earlier Japanese was a forced-agreement language; he claims that *wh*/focus movement is obligatory, and both subject and object take obligatory abstract case marking. In modern Japanese, in contrast, *wh*-phrases do not move, relative clause heads need not raise, and abstract case marking is optional. We will show that the alignment characteristics of OJ are compatible with the view that certain, but not all, types of movement are forced in OJ nominalized clauses. In particular, complements marked by *wo* obligatorily move out of VP. However, this obligatory movement, together with *wh*-movement in OJ, is associated with the domain of active alignment in OJ syntax, namely nominalized clauses. The characteristic word order flexibility and other types of optionality are allowed in conclusive clauses, the domain of accusative alignment.

2.3 Previous non-accusative analyses of Old Japanese

2.3.1 Vovin (1997)

Vovin (1997) suggests that the suffix –*i*, analyzed as a subject case marker by traditional grammarians, represents in fact active case, marking subjects of transitive and of active intransitive verbs but not subjects of non-active intransitive verbs.[3] Vovin further argues that the case marker *wo* marks absolutive case, in that *wo* appears not only with the object of transitive verbs but also with the subject of stative predicates, in particular predicates suffixed with –*mi*, called by Vovin "quality stative verbs." Based on the distribution of -*i* and *wo*, Vovin concludes that OJ is a language with active alignment. Although our analysis of OJ active alignment paper differs in many respects from his, Vovin deserves primacy of place as the originator of the hypothesis that OJ syntactic alignment is in important respects non-accusative.

2.3.2 Yanagida (2005, 2007a,b)

Yanagida (2005, 2007a,b) proposes that the historical change described by Miyagawa (1989) and Miyagawa and Ekida (2003) instantiates the cross-linguistically well-documented change from split ergative to accusative. Yanagida's basic claim is that Old Japanese is an ergative-active language with a split case system; the split occurs between main and embedded clauses, a type identified by Dixon (1994, pp. 101–104).

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[3] Vovin (2005, pp. 111–116) revises this analysis, suggesting that OJ –*i* may be a loan from Korean. We return to this point in our discussion of EMJ in Sect. 6.3.

Main predicates in the conclusive (*shûshikei*) form show accusative alignment. Predicates in the non-conclusive forms, i.e., irrealis (*mizenkei*) conditionals, continuative (*renyôkei*), adnominal (*rentaikei*), and realis (*izenkei*), show ergative-active alignment. Yanagida (2007a) proposes that the adnominal form was a vestigial antipassive and *wo* was an oblique case marking the demoted object of the antipassive but was reanalyzed as an accusative case when the antipassive was lost in Old Japanese.[4] A main objective of Yanagida (2007a) is to explain certain apparent counter-examples to Miyagawa's (1989) generalization (5). Yanagida (2007b) shows that in the *Man'yôshû*, there are 90 tokens of transitive clauses whose subject is marked by *no* or *ga* but whose object is morphologically unmarked. Fifty-five tokens occur with adnominal predicates, as in (2a), repeated as (6) below.

(6)   佐欲比賣能故何   比列布利斯   夜麻
      *Saywopimye   no   kwo   ga   **pire**   puri-si*   *yama*   (MY 5/868)
      Sayohime   Gen   child Act   scarf wave-PAdn   hill
      'the name of the hill where Sayohime waved her scarf'

Examples like this are apparent counter-examples to Miyagawa's generalization. However, Yanagida shows that while bare objects do occur with adnominal predicates, there is a clear pattern to the counter-examples: the bare objects are almost without exception non-branching N^0s. Based on these distributional facts, Yanagida proposes that bare objects in nominalized clauses like (6) are incorporated, on the model of languages like Chukchee (Spencer 1999). Chukchee has two types of derived intransitive constructions: a morphologically marked antipassive and the object incorporation strategy. Yanagida argues that OJ used object incorporation in a similar way. Following the basic approach of Baker (1988), non-branching nouns immediately adjacent to an adnominal predicate are incorporated into the verb, and incorporation satisfies the case requirements of the incoporee. This preserves Miyagawa's generalization that the object of the adnominal predicate is not assigned abstract case in its base position.[5] Note importantly that object incorporation is a salient feature of languages with active alignment as observed by Klimov (1977, pp. 125–126); cf. also Sapir (1911).

In this paper, we retain Yanagida's (2007a, b) analysis of OJ as a language involving split alignment and in particular her incorporation analysis of examples like (6). The incorporation analysis is dicussed in Sec. 4. However we do not retain the hypothesis that the adnominal suffix is a vestigial antipassive, for the following reasons.

First, the function of antipassive in ergative languages is to make the clause [-transitive], resulting in assignment of absolutive case to the external argument. But

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[4] Antipassives are common in strictly ergative languages: transitive subjects are marked by absolutive case and objects by oblique case. It is widely claimed that the historical shift from ergative to accusative languages results from reanalysis of antipassives as accusative transitives (e.g., Bittner and Hale 1996).

[5] Miyagawa (1989, footnote 7) recognizes four counter-examples to the generalization that direct objects in adnominal clauses are uniformly marked with *wo* in OJ. Miyagawa suggests that the examples are noun-verb compounds. In fact, the number of bare N^0 + verb examples in the *Man'yôshû* is much larger, and the quantity and lexical variety of these examples indicate a productive process of noun incorporation rather than lexicalized compounds.

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adnominal marking does not have this effect in OJ: the external argument in transitive adnominal clauses is marked with ergative (active) case (*ga*), not absolutive. Second, if adnominal marking in relative clauses was a kind of antipassive, we would expect it to be associated only with subject relatives. This is because of the so-called Absolutive Restriction on A-Bar extraction (Aldridge 2004), which allows only absolutive arguments to undergo relativization (recall that the transitive subject becomes absolutive in antipassives). But the OJ adnominal is used to form relatives of all types (cf (2a), an adjunct relative). Crucially, the adnominal is also used to derive object relatives:

(7) 垂乳根之　　　母我養蚕
    [taratine　no　papa　*ga*　kap-u]　kwo　　　　(MY 12/2991)
    Mk　　　Gen　mother　Act　breed-Adn　silkworm
    'the silkworms bred by my mother'

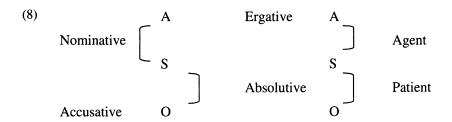This is unexpected if the adnominal was an antipassive morpheme.

    The third problem with the antipassive hypothesis is morphological. Any arguments for analyzing the adnominal as a vestigial antipassive holds for the other nominalized clause types as well since they all occur with *ga*-marked agentive subjects and *wo*-marked objects in the order OSV. But each of these clause types involves a completely different affix: realis -*e*-/-*ure*-, irrealis conditional -*a*-, nominal -*aku*. This means that there would be no specific morpheme marking the antipassive. The fourth and final problem is semantic. In ergative languages, the object argument in antipassives (if realized at all) is typically indefinite or non-referential (Dixon 1994, p. 148). But *wo*-marked objects in OJ are typically definite (Motohashi 1989). Again, this fact is unexpected if *wo* originated as the oblique case marker for objects in antipassives.

    In fact, the expectation that an active language should have an antipassive is a product of the view that active is a subtype of ergative alignment. This view has been pervasive in the typological literature since at least Dixon (1979, pp. 80–85), but it is by no means the only view. Other typologists, in particular, Klimov (1974, 1977, pp. 29–43) have claimed that the two alignment types are distinct (see also Wichmann 2008 and the papers collected in Wichmann and Donohue 2008). We argue in the next section, on empirical and formal grounds, that the latter view is correct. In particular, the feature [±transitive], which plays a crucial role in the assignment of ergative case and in the derivation of the antipassive in ergative languages, does not play this role in active languages.

    In the following section, we outline the typological and formal properties of active alignment before going on to show how these properties apply to OJ.

3 Active alignment

In Dixon's (1979) basic terminology, S refers to the subject of an intransitive verb, A to the subject of a transitive verb, and O to the object of a transitive verb.

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(8)

$$
\begin{array}{c}
\text{Nominative} \begin{bmatrix} \text{A} \\ \text{S} \end{bmatrix} \\
\text{Accusative} \qquad \text{O}
\end{array}
\qquad
\begin{array}{c}
\text{Ergative} \\
\text{Absolutive}
\end{array}
\qquad
\begin{array}{c}
\text{A} \\
\text{S} \\
\text{O}
\end{array}
\begin{array}{c}
\text{Agent} \\
\text{Patient}
\end{array}
$$

In nominative/accusative languages, A and S receive the same case marking (nominative) while O is distinct (accusative). In ergative/absolutive languages, S and O receive the same marking (absolutive) while A is distinct (ergative). In languages with active alignment, the morphological encoding of intransitive subjects depends on the semantic properties of predicates and their arguments.[6] Certain intransitive subjects pattern with A, that is, with transitive subjects while others pattern with objects. Dixon (1979, p. 80) distinguishes these as S_A and S_O.

3.1 Split intransitivity

Active languages divide intransitive verbs into active and inactive. The exact lexical division differs cross-linguistically, but the two classes of intransitive verbs are distinguished by case marking: active intransitive subjects (S_A, typically the agent argument of unergatives) have the same marking as transitive subjects whereas inactive intransitive subjects (S_O, typically the patient argument of unaccusatives) have the same marking as transitive objects. In Hindi, for example, verbs in perfective aspect show an active pattern: the case marker –ne appears on the subject of transitives and unergatives but not on the subject of unaccusatives:

(9)   Hindi (Mahajan (1990))
      a. Raam-ne   kelaa   khaayaa.
          Ram-Erg   banana   Ate
          'Ram ate a banana.'
      b. Kutte   (ne)   bhONke.
          dogs   (Erg)   barked
          'The dogs barked.'
      c. Siitaa   (*ne)   aayii.
          Sita   (*Erg)   arrived
          'Sita arrived.'

Lotha (Tibeto-Burman) also shows active alignment (Dahlstrom 1983); the case maker -na marks S_A, -co S_O.

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[6] Many different terms have been used to describe active alignment. Van Valin (1990) introduces the term split intransitivity; others include variations on Sapir's (1917) original active–stative, agent–patient (cf. Klimov 1977; Mithun 1991), fluid-S/split S (Dixon 1979, 1994). Klimov (1977) correlates a wide variety of lexical and syntactic traits with active alignment.

(10)   Lotha (Dahlstrom (1983))
        a. John-**na**   firo   ci   echo   cho.
            John-Subj   dog   Det   hit   Perf
            'John hit the dog.'
        b. Mpo-**na**   oki   na   hapoi   ci   yi   cho.
            he-Subj   house   from   outside   Det   go   Perf
            'He went outside (from the house).'
        c. Nkolo   co   a   wopan   ciag-**co**   Wokka-e   van   cho.
            long   ago   I   family   Det-Subj   Wokka-Loc   live   Perf
            'Long ago my family lived in Wokka.'

Active alignment can be manifested in the morphological case marked on nouns as
we have seen, but many active languages are strictly head marking: they mark
agreement with NP arguments on the verb. Thus in Guaraní a- cross-references S_A;
se- cross-references S_O:

(11)   Guaraní (Mithun 1991)
        A-xá.   'I go.'   **Se**-rasí.   'I am sick.'
        A-puá.   'I got up.'   **Se**-ropehií. 'I am sleepy.'
        A-gwerú aína. 'I am bringing them now.'

3.2 The nominal hierarchy

We noted in Sect. 2 that the typological literature has tended to classify active as a
subtype of ergative alignment. One argument against this view is that active lan-
guages differ crucially from ergative languages with respect to how ergative splits
interact with Silverstein's (1976) nominal hierarchy:

(12)   The Nominal Hierarchy (Silverstein 1976)
        pronouns   >   proper nouns   >   common nouns
        $1^{st} >2^{nd} >3^{rd}$ person   human > animate > inanimate

Dixon (1979) emphasizes that languages termed ergative invariably show splits, that
is, nominative/accusative features in certain contexts. This interacts with the
nominal hierarchy. Dixon (1979, pp. 86–87) interprets the hierarchy to "roughly
indicate the overall 'agency potential' of any given NP" and observes that "a
number of languages have 'split' case marking exactly on this principle: an
'ergative' case is used with NPs from the right-hand end up to some point in the
middle of the hierarchy and an 'accusative' case from that point on, over to the
extreme left of the hierarchy." This is exemplified by Thulung Rai (Tibeto-
Burman), an ergative language. The suffix $-ka$ marks A when when it is lower on
the hierarchy (Allen 1975, cited by Lahaussois 2003).

(13)   Thulung Rai (Lahaussois 2003)
        a. Gui   pe-pa.hal   s.l-mu   basi.
            1pl   eat-Npst.Prt dish   wash-Nom.inf   Obl
            'We must wash the dishes.'

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    b. Gatsi   mam-lai   kr.m-.a   l.-mu   basi.
        2d   mother-Dat visit-Purp go-Nom.Inf Obl
        'You two must go visit mother.'
    c. Gumimim-**ka**   kam   be-mri.
        3p-Erg   work do-3p/3s.Pst
        'They do work.'
    d. I-lwak-**ka**   i-mam-lai   khl.i.
        2Poss-y.sibling-Erg   2Poss-mother-Dat help.3s/3s
        'Your younger sibling helps your mother.'

In Thulung Rai, first and second person A appears with nominative case while third person and common NP A follows an ergative pattern.

A split between pronouns and nouns is also typical of languages with active alignment, but crucially, the nominal hierarchy applies to the argument NPs in the opposite direction as first suggested by Dahlstrom (1983). First and second person, which are at the top of the hierarchy, show active marking, while common NPs are less likely to be marked.

(14)   Lakhota (Dahlstrom 1983)
      a. **Wa**-lowa.   'I sing.'
         1sg.Ag-sing
      b. **Ma**-haska.   'I am tall.'
         1sg.Pat-be tall
      c. **Ma**-ya-gnaya-pi.   'You pl. tricked me.'
         1sg.Pat-2Ag-trick-Pl

(15) a. Lowa-**pi.**   'They sing.'
         sing-Pl
      b. Haska-**pi.**   'They(anim.) are tall.'
         be tall-Pl
      c. **Ma**-gnaya-**pi.**   'They tricked me.'
         1sg.Pat-trick-Pl
      d. Wicha-**wa**-gnaya. 'I tricked them.'
         anim.3Pl.Acc -1sgAG –trick

In Lakhota, the first and second person pronouns *wa* and *ma* display an active pattern, but third person plural *pi* has a nominative-accusative distribution. Independent NPs appear neither with morphological cases nor adpositions. As Mithun (1991) points out, case systems based on agency are frequently restricted to nominals referring to human beings. [7] Thus Koasati shows agentive case marking on pronominal prefixes within verbs but accusative case marking on nouns. The active system in Batsbi (Tsova-Tush) is limited to first and second persons.

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[7] Mithun (1991) identifies the semantic basis of the active marking of various West Hemisphere languages, both synchronically and diachronically.

Central Pomo has an active system in nominals referring to humans only. The Georgian active system is restricted to human beings. The Yuki system is restricted to animates. From these cross-linguistic observations, the implication follows that active marking is used with NPs from the left-hand side to the right-hand side of the nominal hierarchy; that is, if a language has agent marking in third person, it also has agent marking in first and second person. This is exactly the opposite of the right-to-left application of the hierarchy proposed by Dixon for ergative languages. The relationship between active marking and the nominal hierachy is stated in (16):

(16) The Active Marking Hierarchy
In active languages, if active marking applies to an NP type α, it applies to every NP type to the left of α on the nominal hierarchy.

The preceding discussion shows that assignment of active case is dependent not just on the thematic role assigned by the verb but on the place of S on the nominal hierarchy. Klimov (1974, 1979) emphasizes this point, stressing that in active languages the semantics of both the predicate and the subject NP govern the distribution of active case.

Dixon (1979, pp. 80–83) divides active languages into two groups; "split S" languages such as Tupí-Guaraní and "fluid S" langauges such as Batsbi. In split-S systems, the two classes of intransitive verbs have fixed membership, and whether they belong to the active or inactive class is based on their prototypical meaning. In fluid S systems, verbs are divided depending on the meaning of each particular token. The active pattern appears when the S argument has control over the activity, and the inactive pattern appears when control is lacking. Consider Batsbi, a fluid S language cited by (Comrie 1978, p. 366).

(17) Batsbi: Northeast Caucasian
a. Txo   naizdrax   qitra.
   we-Abs   to-the ground   fell
   'We fell to the ground (unintentionally).'
b. Atxo   naizdrax   qitra.
   we-Erg   to-the ground   fell
   'We fell to the ground (intentionally).'

In (17a) the activity is unintentional, and the subject is marked absolutive while in (18b) the activity involves intention, and the subject is marked ergative/active.

Summarizing, the distribution of active of S_A marking can vary along three dimensions: the prototypical meaning of the verb (whether it is agentive or non-agentive), the degree of control associated with the S argument, and the place of S on the nominal hierarchy. Legate (2008) provides a framework that can capture these properties and distinguish active from ergative systems. In Legate's framework, the external argument in ergative languages receives inherent ergative case in its underlying position in the specifier of [+transitive] vPs. [The analysis of ergative as

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inherent case assigned to the external argument *in situ* originates with Woolford (1997) and is shared by such researchers as Aldridge (2004)]. In active languages, transitivity plays no role: inherent Active case is assigned to the external argument in Spec, *v*P regardless of whether or not *v* is [+transitive]. We propose that other features may also play a role in the assignment of inherent active case, including person features and semantic features such as [±animate]. This allows us to account for languages where NP type determines the distribution of active case.

4 Evidence for active alignment in Old Japanese

In this section, we present evidence for active alignment in Old Japanese nominalized clauses, focusing on subject case marking and verbal prefixation.

4.1 Agent marking with *ga*

In modern Tokyo Japanese, *ga* is clearly a nominative case marker because it marks both the external argument of transitives and the internal argument of intransitives, as in (18).

(18)   a.   Taroo   ga   naita
             Taroo   Nom   cried
             'Taroo cried.'
       b.   Hana   ga   saita
             flower   Nom   bloomed
             'Flowers bloomed.'
       c.   Taroo   ga   hon   o   katta
             Taroo   Nom   book   Acc   bought
             'Taroo bought a book.'

The distribution of *ga* in OJ differs significantly from present-day Japanese. *Ga* in OJ is one of two genitive markers; the other is *no*, which retains this status in modern Japanese. In addition to marking possessors of NP inside DP, both *ga* and *no* also mark the subjects of nominalized clauses. *Ga* is restricted to personal nouns whose referent is someone close to the speaker, such as *imo* 'sister, wife, lover', or a pronoun with a specific human referent. *No*, on the other hand, is used with nonspecific animate nouns, such as *pito* 'other people', and with inanimate nouns.[8] The use of *ga* depends not only on the semantics of the DP it marks but also on the semantics of the predicate. In nominalized clauses, *ga* is

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[8] There are a few examples in which specific but nonhuman nouns such as *pi* 'the sun' or animals of special significance such as *tadu* 'crane' and *siwa* 'snipe' are marked with *ga*. These are almost certainly examples of personification, a prominent rhetorical device in the *Man'yôshû*.

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used with active intransitives and transitives (19) while *no* is used with inactive intransitives (20).[9,10]

(19)   a. 比等豆麻古呂乎   伊吉尓和<u>我</u>須流

        Pito-dumakoro   wo   iki ni   waga suru.   (MY 14/3539)

        person wife   Obj   long for   I.Act do-Adn

        'I long for another person's wife.'

   b. 君<u>我</u>由久道

        kimi   ***ga***   *yuk-u*   miti   (MY 15/3724)

        lord   Act   go-Adn   road

        'the road that my lord travels'

   c. 佐欲比賣能故<u>何</u>   比列布利斯   夜麻...

        Saywopimye   no   kwo   ga   pire   puri-si   *yama*

        Sayohime   Gen   child   Act   scarf   wave-Pst.Adn   mountain

                                                    (MY 5/868)

        'the mountain where Sayohime waved her scarf'

(20)   a. 淑人乃   良跡吉見而

        Yoki   pito   ***no***   yosi   *to*   yoku   mite

        good   people   Gen   good   Comp   well   looking

        好常言師   芳野

        yosi   *to*   ipi*si*   Yosino   (MY 1/27)

        good   Comp   say-Pst.Adn   Yoshino

        'Yoshino, which good people took a good look at and called good, said was good'

   b. 花 能   佐久都奇

        pana   ***no***   saku   tukwi   (MY 18/4066)

        flower   Gen   bloom   month

        'the month when flowers are in bloom'

The first and second pronouns *wa* and *na* are weak pronominal counterparts of the strong pronouns *ware* and *nare*, respectively. These weak pronouns have the properties of clitics: they are invariably marked with *ga* and appear strictly adjacent

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[9] Stative verbs such as *wori* 'be at, sit' and unaccusative verbs such as *ku* 'come' appear with *ga* when the subject is a first or second person pronominal, which are ranked highest on the nominal hierarchy.

(i) a. 米豆良之伎   古美<u>我</u>   伎麻佐婆

       medurasiki   kimi ga   ki-mas-aba   (MY 18/4050)

       Charming   lord Act   come-Hon-if

       'if my charming lord comes'

  b. 和我乎礼婆   宇良之保   美知   久

       wa   ga wor-eba   ura sipo   miti   ku

       I   Actbe-when   bay tide   be.full   comes

       'When I am there the tide will be high in the bay.'

[10] Note that (19a) is an example from Eastern Old Japanese.

to the verb.[11] This contrasts with full NP subjects marked by *ga*, which allow an adverb or even a clause to freely appear between the subject and the verb, as shown in (21).

(21) a. 乎登賣良我　　　　伊米尔都具良久
         wotomye-ra　*ga*　*ime ni*　*tugur-aku*　　　　　(MY 17/4011)
         maiden-Pl　　Act　dream-in　tell-Nomnl
         'The maidens told me in a dream.'

    b. 和藝毛故我　　　　　麻多牟等伊比之　　　　　　　　　等伎
         wagimokwo　*ga*　*mat-amu*　*to*　*ipi-si*　　　*toki*
         my.wife　　　Act　wait-will　Comp　say-Pst.Adn　time
                                    (MY 15/3701, 3713)
        'when my wife said that she would wait'

Given the strict adjacency condition, we assume that the weak pronominals are clitics adjoined directly to the verb.

We see from the semantic differences between *ga* and *no* that *ga* marks NPs higher on the nominal hierarchy in (12) whereas *no* is used with NPs located lower on the hierarchy. This generalization applies both to *ga* and *no* as possessors of NP and markers of subjects (A and S) in nominalized clauses. Note that syncretism between genitive and agentive case is common in non-accusative languages. For clarity, we gloss *ga* as Act(ive) when it marks the S_A of a nominalized clause and as Gen(itive) when it marks the possessor in DP. *No* is glossed as Gen(itive) throughout.

Now consider the OJ examples below:

(22) a. 君我由久　　　　　道乃奈我弓
         Kimi　***ga***　*yuk-u*　miti　*no*　*nagate*　　　(MY 15/3724)
         Lord　　Act　go-And　road　Gen　length
         'the length of the road my lord travels'

    b. 明日香河　　　逝湍乎早見
         Asuka-gapa Ø　yuk-u　se　　　*wo* paya-*mi*　(MY 11/2713)
         Asuka river　　go-Adn　shallows　Obj　fast-Mi
         'since the shallows where the Asuka River flows are fast'

In (22a), the predicate *yuku* means 'go.' Its subject is human and volitional and marked with *ga*. In (22b) *yuku* means 'flow.' Its inanimate subject *Asuka-gapa* 'Asuka river' is morphologically unmarked. The choice of subject marking depends on whether the event denoted by the verb involves control or intention: only the human participant exercises control. Thus OJ nominal clauses are a fluid-S system, in Dixon's sense described in Sect. 3.1.

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[11] Approximately 120 occurrences of subject *(w)a-ga* are found in the *Man'yôshû* (based on the Yoshimura's electronic text); all are immediately adjacent to the verb. (Data cited here include personal pronouns written with phonographs but not the freestanding ideograph 吾, which can be read with or without a case particle.)

4.2 *Ga/no* marking and nominalized clause types

Subjects marked with *ga* and *no* appear in the clause types we have characterized as nominalized: adnominal (*rentaikei*), realis (*izenkei*), irrealis (*mizenkei*) conditionals, and *–aku* nominalizations, but they never appear with predicates in the conclusive form.[12] Let us look more closely at the evidence that these clause types have nominalized status synchronically at the OJ period. First, as described above, their subjects appear with the genitive case particles *ga* and *no*. The semantic distribution of *ga* and *no* in marking the possessor in DPs is parallel to their distribution in nominalized clauses: possessors lower on the nominal hierarchy appear with *no* while NPs higher on the hierarchy, such as personal pronouns, appear with *ga*:

(23) a. 楢乃京師乃   佐保川   (MY 1/79)
          Nara ***no*** miyakwo ***no*** *Sapo* kawa
          Nara Gen   capital   Gen   Saho   river
          'the river Sahokawa in Nara.'

      b. 和可由都流   伊毛我多毛等
          wakayu   *tur-u*   imo ***ga*** *tamoto*   (MY 5/857)
          young.sweetfish   angle-Adn   girl   Gen   wrist
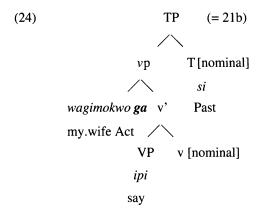   'the arms of my girl who fishes for young sweetfish'

Second, the four clause types appear in positions typical of nominalized clauses: embedded complement and modifier positions and focus constructions, including questions. Whitman (1997) shows that it is common, particularly in East and Southeast Asia, for focus and interrogative patterns to be realized with nominalizing morphology on the predicate. Adnominal clauses appear as focus and interrogative questions, as the object of a postposition or as the subject of a clause. Realis clauses appear as questions as focus constructions with the particle *koso* and as presupposed conditionals typically followed by the particles *–ba* 'as/since' and *–do* 'even (though)'. Irrealis conditionals appear with the same two particles. Nominalized *–aku* clauses are analyzed as nominalizations by Wrona (2008) and typically occur in complement position. All of the environments above are embedded, all complements of a verb or particle or modifier of NP, except for the focus and question constructions associated with the adnominal and realis.

In this paper we adopt the view that nominalization involves a [nominal] feature associated with the lexical verb and percolated to T, the head of the extended verbal

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[12] Sasaki (1996) cites seven examples from the *Man'yôshû* in which he claims that *ga* appears with a predicate in the conclusive form. (We exclude examples involving the character 之 since this character can be read either as the case marker *ga /no* or the focus adverbial *si*.) (21b) above is one of the examples cited by Sasaki; closer inspection of his data reveals that in six out of Sasaki's seven examples, as in (21b), the subject is not in the conclusive *to*-clause but in the higher clause whose predicate is in the adnominal form. The structure of these six clauses, as in (21b), is [Subject-ga$_i$ [pro$_i$ ...V$_{conc}$] V$_{adn}$], where the embedded subject is a phonologically null *pro* coindexed with the *ga*-marked subject in the higher adnominal clause.

projection. [13] The fact that the domain of nominalization in OJ is TP is shown by the ability of the adnominal, realis, and irrealis conditional endings to select tense, negation, and modals such as presumptive *-mu*. In (2a–b), (20a), and (21), for instance, we see examples of the adnominal form of the past tense auxiliary, spelled out as *-si*. The 'high' locus of nominalization in OJ brings to mind languages like Turkish (Kornfilt 2003), where nominalization is at the clausal level.[14] The concrete representation we propose for OJ nominalized clauses with *ga*-marked subjects is given in (24), corresponding to (21b).

(24)   TP   (= 21b)
                                  /\
                        *v*p   T [nominal]
                        /\   *si*
            *wagimokwo **ga***   v'   Past
            my.wife Act   /\
                          VP   v [nominal]
                        ipi
                        say

[Nominal] *v* assigns inherent active case (spelled out as *ga*) to external arguments in its specifier. *Ga* thus appears on the subjects of transitives and unergatives as described in Sect. 4.1. In addition, inherent *ga* is subject to additional featural restrictions typical of active languages as discussed in Sect. 3.2, such as the restriction that the active-marked DP be [animate].

In contrast, genitive *no* is a structural case, assigned by D in DPs such as (23a). We assume that D is also responsible for assigning *no* to the subjects of nominalized clauses such as those in (20), much as in modern Japanese (see Miyagawa 1993 for an analysis of D as the licenser of *no*-marked genitive subjects in modern Japanese). The mechanism of subject *no*-marking is discussed in greater detail in Sect. 4.4.

In this section we have described a dependent marking pattern in OJ chariceristic of active alignment: *ga* marking of A and S$_A$ in nominalized clauses. In the next section we show that OJ also displayed head marking patterns characteristic of active alignment.

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[13] This contrasts with approaches that posit a category-fixing head *n* that selects an acategorial root (Marantz 1997) or *v*P (Alexiadou 2001). Such an approach is not impossible in OJ, but the category-fixing head would have to select T.

[14] However, in Turkish the locus of nominalization is higher than in OJ: Kornfilt (2003) places it in the Agr or Finite head where subject agreement is spelled out above the Tense-Aspect- Modal projections. OJ, like modern J, has no overt agreement morphology in this position, nor is there any overt Finite or C morpheme above the TAM (Tense/Modal/Aspect) auxiliaries. Instead what we find are adnominal, etc. allomorphs of these auxiliaries. For this reason we interpret the adnominal and other nominalized forms as the spellout of [nominal] T.

4.3 Active/inactive prefixes

A heretofore completely unnoticed piece of evidence for the active alignment of OJ comes from the verbal prefixes *i-* and *sa-*. Japanese traditional linguists have failed to identify a consistent semantic or syntactic function for these prefixes. But careful analysis shows that *i-* is attached to active verbs, and *sa-* to inactive verbs. These two prefixes appear almost exclusively in nominalized, as well as infinitive, clauses.

4.3.1 i- on active verbs

The prefix *i-* is richly attested in the *Man'yôshû*, as in (25a–b).

(25)   a.   楢乃京師乃   佐保川尓   伊去至而
            Nara   *no*   miyakwo   *no*   *Sapo*   kawa *ni*   *i*-yuki   itarite
            Nara   Gen   capital   Gen   Saho   River–Loc   i-go   reaching
                                                                               (MY 1/79)

            'I reached the River Sahokawa in Nara.'
       b.   久米能若子我   伊觸家武
            Kume   *no*   wakugwo   *ga*   *i*-pure-*kyem-u*
            Kume   Gen   youth   Act   i-touch-PConj-Adn
            礒之草根
            iswo   no   kusa   no   ne
            rock   Gen   grass   Gen   root   (MY 1/435)
            'the root of the grass that the youth of Kume would have touched.'

A total of 74 occurrences of *i-* are found in the *Man'yôshû*. The distribution of *i-* parallels that of the case marker *ga*: both appear in nominalized clauses, i.e., irrealis (*mizenkei*) conditionals and *-aku* nominal, adnominal (*rentaikei*), and realis (*izenkei*) clauses.

(26)   Quantitative data for prefix *i-*[15]

Irrealis (Mizen)	Realis (Izen)	Adnominal (Rentai)	Infinitive (Renyô)	Conclusive (Shûshi)	Imperative (Meirei)	Total
3	5	19	44	(2)	(1)	74

The prefix *i-* attaches to active verbs (all tokens of *i-* in the *Man'yôshû* are cited in Yanagida 2007b). There are a number of cases in which *i-* is prefixed to the unergative verb *yuku* 'go' but no examples in which *i-* is prefixed to the unaccusative verb *kuru* 'come'. There are a few examples in which *i-* is prefixed to what appear to be nonagentive verbs, such as (27).

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[15] The parentheses on the totals for conclusive and imperative examples of *i-* indicate that all three of these examples are subject to alternative analyses, as discussed below.

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(27) 三輪乃   山...   奈良能山乃   山際
      Miwa *no*   yama ... Nara no   yama   *no*   yama no ma ni
      Miwa Gen   mountain Nara Gen   mountain Gen   mountain   among
      伊隠万代   道隈   伊積流万代尓   (MY 1/17)
      i-kakur-u *made* miti no   kuma *i*-tumor-u   *made*   ni
      i-hide-Adn   until   road Gen bend i-amass-Adn   until   Loc
      'Mt. Miwa... until you hide yourself among the mountains of Nara,
      until you loom in the bends of the road'

Although we might expect (27) to be interpreted as inactive since the subject *Miwa-no yama* 'Mt Miwa' is superficially inanimate, the clause is interpreted as personificational by all Japanese commentators.[16] The use of *i*- here thus fits with our characterization of OJ as a fluid-S language in the previous section: ostensibly nonagentive verbs may appear with active marking when they have human (or personified) subjects.

Unlike active marking *ga*, *i*- also appears in infinitive (*renyôkei*) clauses. But in infinitive clauses too, the prefixed verb is unfailingly active in all of the clearly interpretable examples. Of the 44 examples of *i*- prefixed to a verb in the infinitive, 18 involve the unergative verb *yuk*- 'go'. The overwhelming majority of *i*+infinitive clauses have agentive empty (*pro*) subjects.[17]

In addition to being restricted to active verbs, we see from the table in (23) that *i*- occurs almost exclusively with the clause types we have identified as nominalized or in infinitive clauses with agentive *pro* subjects. None of the threee potential counter-examples to this generalization are written with phonograms. Kojima et al. (1995, vol. 3, p. 369) interpret the single potential imperative example (MYS 3169) as not involving prefixal *i*- but rather the honorific verb of displacement *imas*- 'go/come (Honorific)'.[18] In fact, both of the potential conclusive examples, MYS 1916 and 3885, are open to this same interpretation, as both involve honorific subjects and a verb with the meaning 'go' written in Chinese characters. If this interpretation is correct, there are no examples of *i*- occurring with imperative or conclusive predicates.

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[16] Wrona (2006) cites the second clause of (27) *miti no kuma i-tumor-u* as a counter-example to the generalization that *i*- appears only on active verbs, interpreting this clause as 'bends of the road pile up'. This interpretation is also followed by Kojima et al. (1995) and Satake et al. (2002). But Nakanishi (1978/2004) interprets personificational 'Mt. Miwa' as the subject of both clauses. Because this preserves the evident parallelism of the two clauses, we have followed Nakanishi's interpretation here.

[17] To be precise, 40 of the 44 infinitive examples have human agentive *pro* subjects. Two have personificational subjects, *shirakum(w)o mo* 'white clouds too' (MY 317) and *amakum(w)o mo* 'sky-clouds too' (MY 319), both occurring with unergative *i-YUKI* '*i*+going'. Both NPs are marked with the subdued focus marker *mo* 'too/even' suggesting that they are external to the infinitive clause. Only two examples have possible clause-internal non-agentive subjects, but both of these (MY 2145 and 3409) are problematic of interpretation. MY 2145 is particularly instructive. Kojima et al. (1995, vol. 3, p. 111) note that the infinitive clause in question *sa-wosika no kowe i-tuki i-tuki* 'the voice of the buck *i*-continuing, *i*-continuing' must be interpreted in context as an elliptical realis (*izenkei*) conditional: 'when *pro* hears the voice of the buck'.

[18] Satake et al. (2002, vol .3, p. 205) also acknowledge this interpretation.

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Summing up, the OJ verbal prefix *i-* is restricted to active verbs. It occurs only with nominalized predicates—the domain we have associated with ergative-active alignment—and infinitives with agentive *pro* subjects.

4.3.2 sa- on Inactive verbs

The prefix *sa-* differs crucially from *i-* in that it appears only on inactive verbs, as in (28).

(28) a. 左奈良敝流　　　　多可波奈家牟等
      sa-narap-yer-u   *taka* *pa* *nak-ye-mu*   *to* (MY 17/4011)
      sa-be.tamed-Perf-And falcon Top cry-Pst-Presum Comp
      'that the tamed falcons would have cried'

    b. 左宿之妻屋尓　　　　　　朝庭出立偲
      sa-ne-*si*   tumaya *ni* asita *ni* *pa* ide-tati
      sa-sleep-Pst.Adn bedroom in morning in Top leaving
       sinopi   (MY 3/481)
       remembering
      'remembering, leaving the bedroom where (I) slept'

    c. 狭丹頬相　　　　吾大王
      sa-niturap-u wa ga   opo kimi   (MY 3/420)
      sa-shine-Adn I   Gen   great lord
      'my great lord who shines'

    d. 椙野 尓　　　　　　　左乎騰流雉
      sugwi no   nwo   *ni sa-wodor-u*   kigisi
      cedar Gen field *in* sa-dance-Adn pheasant   (MY 19/4148)
      'the pheasant that dances in the cedar-covered field'

    e. 河湍尓波　　　　　　年魚子小狭走
      kapa se   *ni* *pa* ayu   kwo *sa*-basir-i   (MY3/475)
      river shallow in Top sweetfish fry   sa-run-Inf
      'the young sweetfish running in the river shallows'

There are 30 tokens of the prefix *sa-* on verbs, including *neru* 'sleep', *niturapu* 'shine', *pasiru* '(fish) run', *wodoru* '(birds) dance', *wataru* '(toads) cross', *nebapu* 'spread roots', *narabu* '(birds) line up', *kumoru* 'get cloudy', *nituku* 'get reddened'. All the verbs are intransitive, and all have non-agentive subjects (aside from *ne-* 'sleep', all are nonhuman).

(29) Quantitative data for prefix *sa-*

Realis (Izen)	-aku	Adnominal (Rentai)	Infinitive (Renyô)	Conclusive (Shûshi)	Imperative (Meirei)	Total
2	2	14	7	3	2	30

Like *i-*, the prefix *sa-* is used overwhelmingly (25/30 tokens) in nominalized clauses. [19] *Sa-* also occurs in the *Man'yôshû* as a noun prefix, as in *sa-yo* 'night' while *i-* does not. This parallels exactly the distribution of agreement prefixes in active languages such as Sateré -Mawé (Meira 2006): inactive prefixes occur on nouns and inactive verbs while active prefixes occur on active verbs only.[20,21]

Alexander Vovin (p.c.) points out to us that one verb in OJ, *wataru* 'cross', appears with either *i-* or *sa-*. There are four examples of *i-watar-* in the *Man'yôshû* (MY 1742, 2081, 4101, and 4126), and six examples of *sa-watar-* (MY 800, 971, 1960, 1976, 2450, and 2804). The S of *i-watar-* is [+human] and volitional in all four examples: 'the young woman,' 'Tanabata' (Vega, the weaver star), 'the fisherfolk,' and 'Vega and Altair.' The S of *sa-watar-* is [-human] in all six examples: 'toads' (800, 971), 'a cuckoo' (1960, 1976), 'the moon,' 'a teal'. Typical examples of each pattern are given in (30).[22]

(30) a. 安麻能我波   波志和多世良波   曽能倍由母
          ama   *no*   *gawa*   *pasi*   *watasera-ba*   sono *pe*   *yu*   *mo*
          sky   Gen   river   bridge   span-if   that over   from   too
          伊和多良佐牟乎   (MY 18/4126)
          i-watar-as-am-u   *wo*
          *i-*cross-Hon-Prop-Adn   Conj
          'though if one put a bridge across the Milky Way, (they=Vega and Altair) would *i-*cross over on that'
      b. 雲間従   狭化月乃   於保々思ク
          kumo   ma   ywori   *sa-wataru*   tukwi   no   *opoposiku*
          cloud among from   *sa-*cross   moon   Gen faintly
          相見子等   (MY 15 /2450)
          api   misi   kwo
          join saw   child
          'the girl I saw faintly like the moon *sa-*crossing from among the clouds'

I-watar- 'cross (over the bridge)' is agentive volitional, and telic, a stereotypical active verb. *Sa-watar-* is non-agentive and designates not a completed action but the

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[19] Three of the five counter-examples involve *ne-* 'sleep' with human subjects: conclusive (MY 2782) and two with imperative (MY 636, 2629). Since *sa-ne* '*sa*+sleeping' also occurs as a noun, these examples may be back formations. The remaining two counter-examples, conclusive MY 859 and 4156, both involve the collocation *ayu sa-basiru* 'the sweetfish *sa*-runs'.

[20] Sateré-Mawé (Tupian) has an active system marked by two series of personal prefixes on the verb (cf. Mithun 1991). Meira (2006) shows that in Mawé nonactive verbs are strikingly similar to (possessed) nouns: the same set of personal prefixes appears on nouns and nonactive verbs; these prefixes do not select active verbs.

[21] On both nouns and verbs *sa-* (but not *i-*) triggers *rendaku* (realized in OJ as prenasalization) on the following voiceless obstruent. This suggests an etymological source of the shape *saN(V). *Sa may be related to the mesial pronouns *sa* 'thus', *so* 'that', and *si* 's/he it' while *N(V) appears related to genitive/inactive *no*.

[22] Commenting on (30b), Kojima et al. (1995, vol. 3, p. 191) observe exactly the distinction we describe here between *i-watar-* and *sa-watar-*. They note that while *i-watar-* occurs only with human subjects, *sa-watar-* is restricted to nonhuman subjects. They fail to extend this distinction to other verbs, however.

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moon passing before the speaker's view, in other words, a stereotypical inactive predicate.

We have shown in this section that OJ nominalized clauses show not just an active case marking system but also at least the vestiges of active prefixal morphology. This is evidenced by a strict opposition between active and inactive verbs in both dependent and head marking strategies. Dependent marking of active S by the case marker *ga* is in opposition to marking of inactive S by *no* (and, as we discuss in the next section, zero). Head marking of active predicates by the prefix *i-* is in opposition to the prefix *sa-* on inactive predicates.[23]

4.4 Marking of Inactive Subjects

As discussed above, active alignment surfaces in nominalized clauses but not in main clauses whose predicate takes conclusive form. A main/nominalized split is also attested by unmarked subjects. In nominalized clauses, the internal argument of unaccusative verbs can be unmarked morphologically while, as we saw in Sect .3.3, the external argument of transitive/unergative verbs is typically marked by Active *ga*. In almost all cases, bare theme subjects of nominalized clauses appear immediately adjacent to the verb (for quantitative data, see Yanagida 2007b). Examples are given in (31).

(31) a. 久木生留   清河原尔
          pisakwi Ø   opu-*ru*   kiywoki   kapara   *ni*   (MY 6 /925)
          catalpa   grow-Adn clear   riverbank   on
          'on the banks of the clear river where catalpas grow'

      b. 和何則能尔   宇米能波奈知流   比佐可多能
          waga   *sono*   *ni*   *ume*   *no*   *pana* Ø   *tir-u*   pisakata   *no*
          I Gen   garden   in   plum   Gen   blossom   fall-Adn   Epithet   Gen
          阿米欲里
          ame   *ywori*   (MY 5/822)
          sky   from
          'in my garden plum blossoms fall from the sky'

In Sect. 5 we show that objects adjacent to transitive verbs are limited to non-branching N^{0}s and are thus analyzable as having undergone incorporation. The

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[23] An apparent counter-example to this generalization is found in MY 804, where *ga* and prefixal *sa-* appear to surface in the same clause:

(i)   遠等咩良何   佐那周伊多斗   乎意斯比良伎
       wotomye-ra *ga*   **sa**-*nasu itado* *wo*   *osipirak-i*
       maiden-Pl   Act   *sa*-sleep door   Obj   push open-Inf
       'pushing open the door where the maidens sleep.'

Kojima et al. (1972), however, interpret *wotomyera ga* 'maidens GA' as the genitive possessor of *itado* '(wooden) door', a metonymic expression for 'bedroom'; the entire NP then has the interpretation 'pushing open the maiden's (bedroom) door where they sleep' and the structure in (ii):

(ii)   [$_{NP}$ wotomyera   ga [[pro **sa**-nasu]   itado]]   wo   osipirak-i
            maidens   Gen   *sa*-sleep   door   Obj   push open-Cont
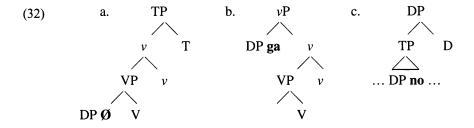On this interpretation *wotmyera ga* is not the clausemate subject of *sa-nasu* `*sa*-sleep'.

incorporation analysis can be extended to non-branching theme subjects, such as *pisakwi* 'catalpa' in (31a). But branching theme subjects also occur in this position, as shown by *ume no pana* 'blossom of the plum' in (31b). This indicates that unaccusative subjects have a licensing option not available for transitive objects.

Recall that in Sect. 4.2 we described two genitive subject marking strategies in nominalized clauses: active *ga*-marking for agentive subjects high on the nominal hierarchy; and genitive *no*-marking licensed by D, much as in adnominal clauses in modern Japanese (Harada 1971; Miyagawa 1993). A third option, exemplified by (31b), is available for bare subjects of unacusatives that remain in VP. Note that this third option cannot involve an 'absolutive' case because absolutive should be available for both S_O (unaccusative subjects) and O (transitive objects), but, as mentioned above and described in more detail in Sect. 5, branching transitive objects do not appear in the VP-internal position. Note also that the VP-internal bare subjects in (31) are nonspecific, (catalpas, plum blossoms) while subjects marked with *no* may be either nonspecific, as in (20b) (flowers), or specific, as in (30b) (the moon). These facts suggest that examples like (31) involve an impersonal construction, with the bare theme subject licensed *in situ* inside the VP. Impersonal constructions require a mechanism for assigning nominative case to the theme subject *in situ*. We propose that T in OJ nominalized clause may bear a case feature but only in very restricted circumstances: when T selects 'defective' *v*, that is, *v* lacking a specifier and a case feature of its own (Chomsky 2001). On this view, the bare theme subject in (31b) is assigned case by T *in situ*.

Summarizing, the three case marking strategies for subjects of nominalized clauses are shown in (32).[24]

(32)　a.　TP　　b.　*v*P　　c.　DP

    v　　T　　DP **ga**　*v*　　TP　　D

    VP　*v*　　VP　*v*　　... DP **no** ...

    DP **Ø**　V　　V

Nonspecific theme subjects *in situ* are assigned case by T selecting a defective *v*P (32a). Inherent *ga* is assigned to active subjects in Spec, *v*P (32b). Genitive *no* is assigned by D to subjects elsewhere. On the assumption that specific theme subjects move out of the VP (Diesing 1992), this explains why specific theme subjects such

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[24] Miyamoto et al. (1999) report that Japanese children show a case marking pattern for subject NPs highly reminiscent of what we have described for OJ. They observe that children commonly omit nominative *ga* for subjects of unaccusative verbs while consistently using *ga* for subjects of transitives and unergatives. They propose that the A-chain Deficit Hypothesis (ACDH) (Borer and Wexler 1987) accounts for why children treat unaccusatives differently from transitives and unergatives. From a learnability perspective, it may be worth pursuing a unified account for this parallel between the acquisition and syntactic change.

as 'the moon' in (30b) receive *no* rather than bare marking. [25] Under this analysis, *no*-marking is licensed by a higher head, outside the active alignment system of OJ nominalized clauses.

Turning now to conclusive clauses, unmarked subjects occur freely both as the external argument of a transitive and the internal argument of an unaccusative, as shown in (33).

(33) a. 烏梅能波奈　　　　伊麻佐加利奈利
  Ume　no　pana Ø　*ima　sakari　nar-i.*
  Plum　Gen　blossom　now　at.peak　be-Conc
  'The plum blossoms are now at their peak.'
  b. 見度婆　　　　安麻乎等女登母　　　多麻藻可流美由
  Miwatase-ba　amawotomye-domo Ø　*tama　mo* Ø　*karu*
  Look cross-when　fisher maiden-Pl　　　pearl　seaweed　gather
  miy-u.　　　　　　　　　　　　　　(MY 17/3890)
  appear-Conc
  'When I look around, the fishermaidens appear to be gathering pearly seaweed.

While clitic pronouns are uniformly marked by *ga* and restricted to nominalized clauses as shown in Sect. 3.3, strong pronouns in subject position are unmarked morphologically and never appear with *ga*.

(34) a. 吾草取有
  ware Ø　*kusa* Ø　*tor-er-i*　　　　　　　(MY 10/1943)
  I　　　weed　take-Perf-Conc
  ' I am picking weeds.'
  b. 安米都知能　　　可未乎許比都々　　　安礼麻多武
  *Ametuti　　no　kamwi　wo　kopitutu　**are*** Ø　*mat-am-u.*
  heaven.earth　Gen　god　　Acc　pray　　I　　　wait-Presum-Conc
  　　　　　　　　　　　　　　　　　　　　　　(MY 15/3682)
  'Praying to the gods of heaven and earth, I will wait.'

Bare objects as in (33b) in conclusive clauses can be analyzed as receiving structural accusative case from v, as proposed by Miyagawa (1989). Bare subjects as in (33a) can be analyzed as receiving nominative case from T, as in modern Japanese (Takezawa 1987). While the phonological exponence of nominative and accusative case differs, the syntactic mechanisms for case marking in OJ conclusive clauses are essentially the same as in modern Japanese. However, the sharp difference between the patterns in conclusive and nominalized clauses confirms that OJ was a language with split alignment: while conclusive clauses follow a nominative-accusative pattern, distinguishing S/A and O, nominalized clauses show an active pattern, distinguishing S_A and S_O and grouping S_A with A. In the next section we turn to object marking in nominalized clauses.

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[25] We leave the precise landing site of *no*-marked unaccusative subjects in OJ for future research.

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5 Object marking in nominalized clauses

This section discusses the two patterns of object marking in nominalized clauses. We focus on adnominal clauses because of their higher frequency, but the same generalizations hold for the three other types of nominalized clauses.

5.1 Bare objects

As we saw in Sect. 2.1, Miyagawa (1989) argues that in Early Middle and Old Japanese, adnominal predicates fail to assign accusative case, and hence an object must be licensed by morphological case in the form of *wo* in order to avoid a violation of the Case Filter. There are, however, a number of OJ examples in which an adnominal predicate takes an object lacking a morphological case, which are thus apparent counter-examples to Miyagawa's (1989) generalization. Yanagida (2007b) shows that in the *Man'yôshû* there are 90 tokens of transitive clauses whose subject is marked by *no* or *ga* and whose object is morphologically unmarked. Fifty-five occur with attributive predicates, as in (35).

(35) a. 佐欲比賣能故何   比列布利斯
          *Saywopimye   no   kwo   ga   **pire**   puri-si*
          Sayohime   Gen   child Act scarf   wave-Past.Adn
          夜麻能名
          yama   no   na   (MY 5/868)
          hill   Gen   name
          'the name of the hill where Sayohime waved her scarf'
      b. 之加乃白水郎之   燒塩煙風
          *Sika-no   ama   no   **sipo** yak-u   keburi (MY 7/1246)
          Shika Gen   fishermen Gen   salt   burn-Adn smoke
          'the smoky haze raising when fishermen of Shika burn salt'

However, while bare objects do occur with adnominal predicates, there is a clear pattern to the counter-examples. The bare objects are almost without exception non-branching N^0s. Of the 55 examples of this type, only one has a phrasal object, MY 2639 in (36):[26]

(36) 憑也君之   吾之名告兼
      Tanome   ya   kimi   ga   **waga   na**   norikyem-u? (MY 11/2639)
      Trust   Foc/Q lord   Act my   name   state-PConj-Adn
      'Is it because (he) trusts in me, that my Lord has stated my name?'

In relative clauses, where the predicate is realized in the adnominal form, bare objects are systematically non-branching, as in (37) (see Appendix 1 for possible exceptions).

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[26] It should also be noted that on the clitic analysis of pronoun + *ga* (4.1, Yanagida 2007b), the bare object *wa ga na* 'my name' in (36) is not, strictly speaking, phrasal.

(37) 玉藻苅   海未通女等
      [tamamo kar-u]   amawotome-domo   (MY 6/936)
      seaweed cut-Adn fisherwoman-Pl
      'the fisherwomen who are gathering seaweed'

Based on these distributional facts, we propose that bare objects in nominalized clauses like (35) are to be analyzed on analogy with incorporated objects in Chukchee (Spencer 1999):

(38) Chukchee (Spencer 1999)
      a. Muri   myt-ine-rety-rkyn   **kimitʔ-e.**
          we-Abs   we-AP-carry-Pres/ɪɪ load-Instr
          'We are carrying the load.'
      b. Ytlyg-yn **qaa**-tym-gʔe.
          father-Abs deer-killed-3sɢ
          'The father killed a deer.'

Chukchee is a split ergative language that has two types of derived intransitive constructions with semantically transitive verbs (Spencer 1999). One is the anti-passive in (38a), where O is marked with oblique case and A is absolutive; the second, restricted to N^0 objects, is the object incorporation strategy in (38b). The incorporation strategy for objects is also widely attested in American languages displaying active alignment (Sapir 1911).

   We propose that OJ uses the incorporation strategy for bare objects, like Chuckchee. Following the basic approach of Baker (1988), non-branching nouns immediately adjacent to an adnominal predicate are incorporated into the verb, and incorporation satisfies the case requirements of the incorporee. This preserves Miyagawa's generalization that the object of the adnominal predicate is not assigned abstract case in its base position.

5.2 *Wo*-marked objects

Vovin (1997), developing the hypothesis that OJ is an active language, proposes that *wo* is an absolutive case marker because it marks not only the objects of transitive verbs but also the subjects of non-active intransitives, primarily adjectives. Most of these occur in a pattern involving the adjectival stem plus the suffix *-mi*:

(39) 久左麻久良   多婢乎久流之美   故非乎礼婆
      kusa makura tabi wo   kurusi-mi kopi   wor-eba (MY15/3674)
      grass pillow   travel Obj painful-mi long.for be-when
      'as I am longing for (my wife) travel being painful'

There are also some examples in which a subject marked by *wo* occurs with inactive predicates followed by the complementizer *to* (40):

(40)   a.   世間乎   宇之等夜佐之等

         yononaka   *wo*   u-si   *to*   yasa-si   *to*

         world   Obj   dreary-Conc   Comp   shameful-Conc   Comp

         於母倍杼母

         omop-e-domo   (MY 5/893)

         think-Rls-though

         'though I feel the world unpleasant and shameful'

   b.   和礼乎   伊都伎麻佐牟等   登比之古良

         ware   *wo*   *itu*   *ki-mas-am-u*   *to*   *topi-si*   *kwo-ra*

         I   Acc   when   come-Hon-Conc   Comp   ask-P.Adn   child-Affec

                                                                (MY20/4436)

         'that dear girl, who asked when I would come back'

Miyagawa and Ekida (2003) propose that examples like (40a–b) are instances of exceptional case marking (ECM), on the assumption that *wo* is the spellout of abstract case assigned by the matrix verb. Yanagida (2006) argues that OJ has no ECM construction and that *wo*-marked subjects in the pattern with *to*-clauses as in (40a–b) are arguments of the higher verb (which, as we observe, has a nominalized inflection, realis and adnominal, respectively).[27] Under either analysis, *wo* is assigned not by the embedded intransitive predicate but by the matrix transitive verb. Note that this leaves open the status of the NP *wo*...-*mi* pattern, to which we return at the end of this section.

     The strongest argument against the analysis of *wo* as an absolutive marker is that the subject of a non-active intransitive verb is never marked by *wo* in adnominal, realis or irrealis conditionals, or –*aku* nominal clauses. It is either morphologically unmarked or marked by genitive *no*, as discussed in section 4 and exemplified by (41–42).

(41)   a.   多都多夜麻   美麻知可豆加婆

         Tatuta   *yama*   *mi-ma* Ø   *tikaduk-a-ba*   (MY 5/877)

         Tatsuta   mountain   Hon-horse   comes.near-Irr-if

         'If your horse draws near the Tatsuta mountain'

   b.   梅 花   咲散苑尓   吾将去

         Ume   no   pana Ø   saki   tir-u   sono   *ni*   ware   yuk-amu.

         Plum   Gen   blossom   bloom   fall-Adn   garden   to   I   go-will

                                                   (MY 10/1900)

         'I will go to the garden where plum blossoms bloom and fall.'

(42)   a.   此暮   柘之左枝乃   流来者

         Kono   yupupye   tumo   no   *sa*-yeda   **no**   nagare   k-o-ba

         this   evening   mulberry   Gen   branch   Gen   flow   come-Irr-if

                                                       (MY 3/386)

         'if this evening a mulberry branch comes flowing down'

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[27]   See Hoji (1991) for a similar analysis of so-called Raising to Object constructions in modern Japanese.

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b. 宇能花能　　　　　　　　　　佐久都奇
   u   *no* pana   ***no*** *sak-u*   *tukwi*   (MY 18/4066)
   utugi Gen blossom Gen bloom-Adn   month
   'the month when the utsugi blossom is in bloom.'

If *wo* was an absolutive case marker, we would have no explanation for why the subject is never marked by *wo* in the contexts given in (41–42).

    The particle *wo* differs significantly from its descendant *o* in modern Japanese in that it marks not only direct objects but all kinds of VP-internal arguments including quasi-adjuncts (cf. Motohashi 1989). In (43a), *wo* marks the goal argument, and in (43b–e) it marks source, locative, and time adjuncts. In (43f–g) *wo* co-occurs with a locative adjunct marked by *ni*, 'in/at'.

(43)   a. 象小河乎　　　　　　　　　行見為
         Kisa   no   wogapa   ***wo*** yuki-te mi-m-u   tame
         Kisa   Gen   stream   Obj go-ing see-Presum-Adn purpose
                                                (MY 3/332)
         'in order to go and see the Kisa stream.'
    b. 奈良乎伎波奈礼
         Nara   ***wo***   *k-i*   *panar-e*   (MY17/4008)
         Nara   Obj   come-Inf leave-Inf
         'coming away from Nara.'
    c. 川邊乎春雨　　　　　　　　吾立沾等
         kapabe   ***wo***   parusame   ni ware tati   nuru   *to*
         riverside Obj   spring rain   in   I   stand get.drenched Comp
                                                (MY 9/1696)
         'that I am standing getting drenched in the spring rain on the riverside.'
    d. 雨零夜乎　　　　　　　　　霍公鳥　　鳴而 去成
         Ame   no   puru   ywo   ***wo*** pototogisu naki-te yuk-u   nari.
         Rain   Gen   fall   night Obj cuckoo   cry-ing go-Adn is
                                                  (MY 9/1756)
         'Through the night when the rain falls, a cuckoo flies crying.'
    e. 秋風乃　　　　　　　　寒朝開乎 佐農能岡
         aki   kaze *no*   samuki   asake   ***wo*** Sanu   *no*   woka
         autumn wind Gen cold   morning Obj Sanu Gen   hill
         将超公
         kwoyu-ram-u   kimi   (MY 3/361)
         cross-Pr.Conj- Adn   lord
         'my lord, who would be crossing over the Sanu hill in the cold
          morning wind.'
    f. 安我許呂母　　之多尓乎伎麻勢
         Aga *koromo* *sita*   ***ni*** ***wo*** *ki-mas-e.*
         my   robe   underneath Loc   Obj wear-Hon-Imp
         'Wear this robe of mine underneath.'

g. 安治佐為能夜敝   佐久其等久   夜都与尓乎
   Adisawi   *no*   *yapye*   *saku*   *gotoku*   *yatuyo*
   hydrangeas   Gen   eight-layer   bloom   as   eight generations
              伊麻世
   ni   *wo*   imase.   (MY 20/4448)
   Loc   Obj   live-Imp
   'As hydrangeas have eightfold flowers, so may (my lord) live
      for eight generations.'

These facts make it difficult to analyze *wo* merely as the spellout of VP-internal
structural case. In (43f–g), for example, it is unclear why structural case would be
required for PPs headed by the locative postposition *ni*.

   This property correlates with the generalization about the word order of OJ clauses
containing *wo* mentioned in section 1. As shown by Yanagida (2006), the relative
position of the subject and the *wo*-marked object is such that the latter always precedes
the former, as shown in (4) and (19a).[28] Additional examples are given for adnominal
(44a), *-aku* (44b), and realis (44c) clauses below. (See Appendix 2 for a preliminary
correlation of conjugational forms with *wo*-marking in the *Man'yôshu*.)

(44) a. 和礼乎也未尓也   伊毛我古非都追   安流良牟
          Ware *wo* *yami* *ni* *ya*   *imo*   *ga*   *kwop-i-tutu*   *aru* *ram-u*?
          I   Obj   dark   in   Q   wife   Act   longing.for   be   PConj-Adn
                                                                           (MY 15/3669)
          'Would my wife be longing for me in the dark?'
      b. 伎美乎   安我麻多奈久尓
          kimi   *wo*   *a*   *ga*   *mat-ana-ku*   *ni*   (MY 17/3960)
          lord   Obj   I   Act   wait-not-Inf   Loc
          'without me waiting for you'
      c. 草香乃山乎   暮晩尓
          Kusaka   no   yama   *wo*   yupugure   *ni*
          Kusaka   Gen   mountain Acc   twilight   in
          吾超来者
          wa   ga   kwoye   ku-re-ba   (MY 8/1428)
          I   Act   cross   come-Rls-Cond
          'when I cross over Kusaka mountain in the twilight'

Yanagida (2007a) lists 65 examples of XP *wo* preceding subjects. In contrast, the
Man'yôshû contains only one example interpreted as involving the order Agent *ga* ...
XP *wo*.[29]

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[28] Kinsui (2001) also observes this generalization.

[29] The example is:

(i)   夜麻能奈等   伊賓都夏等可母   佐用比賣何
      Yama   *no*   *na*   *to*   *ipi* *tug-ye*   *to* *kamo*   *Saywopimye*   *ga*
      Mountain Gen name Comp   say   tell-Imp   Comp Q   Sayohime   Act
      許能野麻能閉仁   必例遠   布利家牟
      kono yama no   pe   ni   pire   wo   puri-kyem-u   (MY 5/872)
      this mountain top   on   scarf Obj   wave-PPresum-Adn
      'Might Sayohime have waved her scarf on the top of this mountain, (saying) "Pass it on!
      This mountain's name!"'

In addition to this regularity about their word order, it has been observed by
Motohashi (1989) that *wo*-marked phrases tend to be definite. In fact the general-
ization is slightly broader: *wo*-marked phrases are specific. This can be shown by
the fact that *wh*-pronouns can be marked by *wo*, but when they are, they receive a
specific interpretation in contrast to bare *wh*-pronouns. This is shown in the contrast
between the following two examples.

(45) 真木乃板戸乎   押開   思恵也出来根
      Maki *no*   itatwo *wo*   osi   piraki   *siweya*   ide   ko-ne
      wood Gen   door   Obj   push   open   damn   out   come-Des
      後者何将為
      noti   pa   **nani**   se-m-u?   (MY 11/2519)
      after Top   what   do-Presum-Adn
      'Pushing open the door (I say) "Come out, dammit!" Then what will
      (I) do?'

(46) 潮干去者   玉藻苅蔵   家妹之
      sipo pwi-na-ba   tamamo kari tum-ye   ipye   no   imwo   ga
      tide recede-Perf-if   seaweed cut gather-Imp   house Gen wife   Act
      濱衣乞者   何矣示
      pamaduto kop-aba   **nani** wo   simyesa-m-u?   (MY 3/360)
      shore.gift want-if what   Obj   proffer-Presum-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?'

In (45), the universe of things the speaker might do is completely undefined in
previous discourse. In (46), in contrast, 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.

Yanagida (2006) analyzes the properties of adnominal clauses as in (47):

(47)   Case and argument realization in OJ
       (i)   *Ga*-marked subjects stay in the base external argument position
              (Spec, *v*P).
       (ii)   Bare objects are incorporated into the verb.
       (iii) *Wo*-marked objects obligatorily move to the outer Spec of *v*P,
              to check their [definite] feature.

Here we revise this analysis to take into account the new data reviewed in this section.
First, the properties in (47) apply to nominalized clauses generally. Second, move-
ment of *wo*-marked phrases is not triggered by a definite feature since *wo*-marked

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footnote 29 continued

However, this example is open to at least one other interpretation, where *Sapywopime ga* is taken as the
possessive modifier of 'this mountain', i.e., 'On this, Sayohime's mountain, might she have waved her
scarf (saying) . . .' A reviewer of Yanagida (2006) also cites MY 18/4036 as a counter-example, but this is
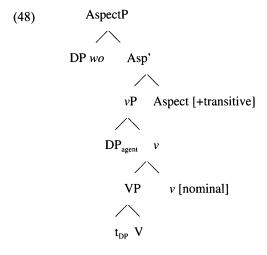based on a misinterpretation of this example.

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XPs may include *wh*-phrases and PPs, among other items. Instead, we would like the specificity of *wo*-marked phrases to be a by-product of their movement.

We can capture these generalizations by returning to the basic insight of Miyagawa (1989): the verbal projection in nominalized clauses does not assign structural case. We saw in Sect. 4 that under the active analysis the *ga*-marked agent in nominaized clauses remains in Spec, *v*P and receives inherent case there. Following Miyagawa's original proposal, we hypothesize that [nominal] *v* does not bear an accusative case feature. This leaves two options for case licensing objects: incorporation, in the case of nonbranching objects, or case assignment by a head above *v*P.

As we have seen, *wo* is realized to the left of the external argument, indicating that it is indeed assigned by a head above *v*P. There are two possible candidates for the identity of this head. One is T; this would bring OJ into line with analyses of certain ergative languages where absolutive case is assigned by T (Aldridge (2004), Legate (2008)). The drawback of this approach is that OJ *wo*, as discussed above, does not show the distribution of a standard absolutive case: it does not appear on the subjects of inactive (or any kind of intransitive) verb. A possible way around this difficulty is to expand the analysis of nominative case assigned by T in nominalized clauses presented in Sect. 4.4. We proposed there that bare theme subjects are assigned nominative case by T selecting a defective *v*P in nominalized clauses. It could be hypothesized that nominative case is also assigned by T selecting nondefective, that is, transitive or unergative *v*P, but that nominative in this instance is spelled out as *wo*. An analysis along these lines seems possible, but it has the flavor of a stipulation, so we will not pursue it further here.

The second option is that *wo* is assigned by a functional head between *v* and T. We propose that *wo*-marked DPs reside in the specifier of AspectP. Washio (2004) shows that aspect selection in OJ was sensitive to transitivity, suggesting that AspectP, rather than *v*P, was the locus for a [±transitive] feature. We hypothesize that [+transitive] Aspect in OJ bears an EPP (Extended Projection Principle) feature that attracts the highest non-inherently case marked argument in the verbal projection to its specifier, as shown in (48).

(48)

Diesing's (1992) hypothesis that bare NPs extracted from the nuclear scope of the clause receive a specific interpretation explains the [specific] property of *wo* marked phrases.

Note that this analysis correlates *wo*-marking and the position of *wo*-marked arguments with the presence of [+transitive] AspectP in nominalized clauses. We leave open the question of *wo*-marking in the other major clause types: conclusive, infinitive, and imperative. We show in Appendix 2 that *wo*-marking also occurs in these clauses, but as observed by Miyagawa (1989) and Miyagawa and Ekida (2003), it is more restricted. In conclusive clauses, it is largely restricted to propositional attitude verbs of thinking or saying while in imperative clauses *wo*-marking seems to have been a mid-eighth century innovation, probably triggered by the phonological merger of certain infinitive and imperative endings.

The AspectP analysis extends naturally to Vovin's characterization of the *wo* ... *–mi* pattern in (39). AspectP is identified as the head of participial-type nominalization in analyses such as Embick (2004) and Alexiadou and Anagnostopoulou (2008). Unlike the object Equi *wo*-marking pattern in (40), the *wo*-marked subject in *wo*...*-mi* clauses is not susceptible to a matrix object (or ECM) analysis because *wo*...*–mi* clauses are adjuncts, typically expressing reason or cause. We analyze the *wo*...*–mi* pattern as adjunct AspPs, analagous to Acc-ing gerunds such as 'travel being painful' in English:

(49) [AspP tabi **wo** [VP kurusi]**mi**] kofi wor-eba
        travel Acc painful-mi   long.for be-when
     'as I long for my wife, travel being painful'

On this analysis, *-mi* is the spellout of the head of [+transitive] AspP. The stipulation that *–mi* is [+transitive] may have a diachronic motivation, as one etymology for *–mi* derives it from the infinitive of the transitive verb *mi-* 'see'. *Wo... -mi* clauses do not contain tense, which is consistent with our hypothesis that *wo* is assigned by a functional head lower than T.

Summarizing the results of this section, we have shown that OJ had two mechanisms for case marking objects in nominalized clauses: incorporation and *wo*-marking above *v*P. The inability of *v* in nominalized clauses to assign accusative case is a direct extension Miyagawa's (1989) original hypothesis. More generally, as we discuss in detail in Sect. 6.2, the active alignment properties of OJ nominalized clauses fit into the cross-linguistic pattern identified by "nominalist" analyses of non-accusative alignment such as Johns (1992) and Kaufman (2007). [Nominal] *v* is unable to check the case feature of the object. Objects must therefore be case licensed by other strategies: assignment of 'absolutive' case by T (Aldridge 2004; Legate 2008), default absolutive (Legate 2008), incorporation, or, in the instance of OJ, case assigment by a functional head above *v*P.

6 Alignment and nominalization in diachronic and typological perspective

We have seen that OJ active alignment is restricted to the clause types we have called 'nominalized': adnominal (*rentaikei*), nominal complements in *–aku*, and

realis (*izenkei*) and irrealis (*mizenkei*) conditionals. We have shown how the nominalized properties of these clauses are intimately linked with their active properties: nominalized clauses assign inherent agentive *ga* in Spec, vP, and [transitive] Aspect in these clauses attracts complements to a position above the external argument, where they receive *wo*-marking. In Sect. 6.1 we discuss the diachronic sources for the nominalized clause patterns in OJ. In Sect. 6.2 we show that nominalizations are a widely attested cross-linguistic source for non-accusative alignment. We focus on a specific case, Cariban languages as analyzed by Gildea (1998, 2000), and point out that it suggests a possible source for the *wo*-marking pattern in OJ. Section 6.3 discusses changes possibly already underway in OJ, involving the genitive/subject marker *no*.

6.1 The nominalizing origins of the adnominal and irrealis conditional endings

Konoshima (1962) seems to have been the first to argue that the nominalizing or *juntaigen* 'quasi-nominal' function of the adnominal endings was primary, and its NP modifying function secondary. Adnominal clauses in OJ have the distribution of [+N] categories, i.e., NPs and uninflected adjectives. Like NPs, they may serve as subject or object of the clause and be followed by case markers. The NP modifying function of adnominal clauses is parallel to uninflected adjectives, which were able to directly modify NP in OJ.[30] As we saw in Sect. 2.1, Miyagawa (1989) also analyzes OJ and MJ adnominal clauses as [nominal].

   Of the remaining three clause types that we have labeled nominalized, two are held to be diachronically derived from the adnominal. Nominal complements in *–aku* are derived by Ohno (1953) from the adnominal form of the verb plus a noun *aku, e.g., *yuk-u* 'go-Adn' + *aku* > *yukaku* 'going;' *kuru* 'come-Adn' + *aku* > *kuraku* 'coming.'[31] Whitman (2004) derives the irrealis endings (*-e* for quadrigrade, *-ure* for other conjugations) from the proto-Japanese form of the adnominal ending *-*or*.

   The irrealis (*mizenkei*) base in OJ is shown by Ohno to be of heterogeneous origin. It results from reanalysis of the initial vowel in various auxiliaries and suffixes as the ending of the irrealis (*mizenkei*) base. In the case of the irrealis conditional, the ending was *-a, probably related to the nominalizing suffix *-a hypothesized by Sakakura (1966, pp. 286–303). This ending is preserved in such noun-verb pairs as *tuk-* 'build up' : *tuka* 'mound;' *mur(e)-* 'gather' : *mura* 'group, village.' The irrealis conditional appears productively only before the conditional particle *–ba, which* Ohno derives from locative *ni* + topic marker *pa*. If Ohno's analysis is correct, it confirms the original nominalizing function of *-*a* as we expect locative *ni* to select a [nominal] form.

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[30] It is widely held that inflected adjectives are a relatively late innovation in pre-OJ (Omodaka et al. 1967, p. 4). It is easy to find OJ examples of uninflected adjectives directly modifying the noun, e.g., *kanasi imwo* 'dear beloved girl.'

[31] Ohno's analysis is generally accepted, but its weak point is that there is no attested noun of the form *aku. An alternative preserving the core of Ohno's insight would derive *aku* from the existential verb root *a-* 'exist' plus the adjectival continuative *–ku*. It has long been pointed out that derivatives of *a-* partake in "stative"-type inflections, e.g., conclusive *–i* in *ar-i* 'exists.' Nominals in *–(a)ku* would then derive from V-ADNOM + exist-CONT, 'being V.'

Summing up, the four clause types that show active-ergative alignment in OJ all derive from nominalizations: the adnominal, nominal, and realis conditional from the pJ nominalizing suffix *-or, and the irrealis conditional from a nominalizing suffix *-a.

6.2 Nominalizations as sources for alignment

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. Proposals of this sort are made for Mayan (Bricker 1981), Austronesian (Starosta et al. 1982; Kaufman 2007), and Cariban (Gildea 1998, 2000). Johns (1992) develops a synchronic account of Inuktitut ergativity based on nominalization.[32] The starting point for these 'nominalist' accounts of non-accusative alignment is similar to Miyagawa's synchronic treatment of adnominal clauses in OJ: nominalized clauses are unable to assign structural accusative case. Depending on the features of T, or whether T is present, nominalized clauses may also be unable to assign structural nominative. The non-accusative alignment properties of nominalizations can be seen in familiar examples, such as English derived nominalizations. Thus in *the city's destruction by the barbarians*, the nominal projection assigns neither accusative nor nominative case; the external argument is licensed by the preposition *by*, and the internal argument is assigned genitive case by D.
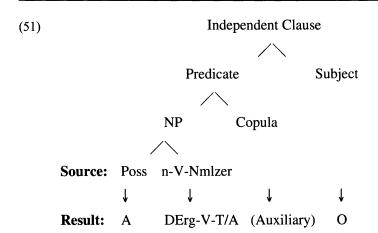
From a diachronic perspective, the nominalist hypothesis holds that non-accusative alignment results when nominalized clauses are reanalyzed as main clauses. Gildea (1998) discusses a particularly rich range of alignment and word order patterns resulting from reanalyzed nominalizations in Cariban. We focus here on what Gildea (1998, pp. 190–196, 2000, pp. 85–88), citing Franchetto (1990), calls the 'De-ergative' system in the Cariban languages Panare and Kuikúro. The source for this system in earlier Cariban, according to Gildea, was an object nominalization selected by the matrix copula. In this source structure, the agent remained within the nominalized VP while the notional object argument of the nominalized verb corresponded to the subject of the matrix copula. Let us first look at a modern Panare example of the de-ergative pattern (50).[33]

(50) yu-noh   pɨ   nɨ-a'kama-pɨtɨ-hpë   mën   (Gildea (2000, p. 86))
      1-grandmother   dead Agt.Foc-tell-Iter-Pst it
      'My late grandmother told it over and over.'

(51) shows the source structure that Gildea (2000: p. 88) posits for the de-ergative pattern:

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[32] See Manning (1996) for the global hypothesis that certain types of ergativity, in the broad sense, have their diachronic origins in nominalizations. We are grateful to Dan Kaufman for pointing us in the direction of this and other research in the 'nominalist' tradition of studies on ergativity, including his own.
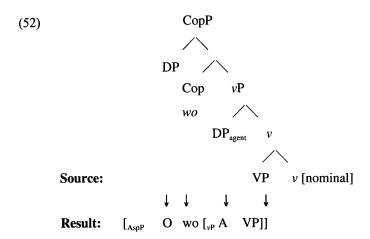
[33] We provide only the segmented morphophonemic representation of Gildea's Panare data in (50) for clarity of presentation.

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(51)   Independent Clause

                                          /\

                             Predicate   Subject

                              /\

                    NP   Copula

                     /\

Source: Poss   n-V-Nmlzer

            ↓   ↓   ↓   ↓

Result: A   DErg-V-T/A   (Auxiliary)   O

The reconstructed source for a sentence like (50), for example, would involve an object nominalization with the meaning 'what my grandmother told over and over again.' 'It' is predicated of this nominalization by the matrix copula. The complete reconstructed source for (50) would thus have the form 'It is [what my grandmother told over and over again].' In Panare, this source structure is reanalyzed as monoclausal, as shown in (51): the copula is reanalyzed as an auxiliary, the nominalization as a verbal projection containing the verb and the external argument (A) in its base position, and the original subject as the object (O). Gildea (2000, p. 98) cites constituency tests showing that O in the Panare de-ergative construction is external to the minimal projection containing A and the verb.

Gildea's account shows how reanalysis of a nominalization structure can result not just in non-accusative alignment but also in a cross-linguistically marked structure. The basic property of this structure is exactly the same as the property of *wo*-marked clauses in OJ identified by Yanagida (2006) and discussed in Sect. 5.2: the object surfaces ouside the minimal projection containing the external argument and the verb.

Japanese is not a member of a clearly defined language family of great time depth like Cariban, so in reconstructing earlier Japanese syntax we are confined to the technique of internal reconstruction. However we would like to conclude this section by suggesting the possibility that a reanalysis similar to (51) was the diachronic source of the O-*wo* S-gen V pattern in OJ. The etymological source of the object marker *wo* has long been debated, but one fact that has not been observed is 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.'[34] We suggest that that *wo* originates as the copular verb in a construction parallel to the Cariban de-ergative pattern.

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[34] Some linguists, such as Tokieda (1954), relate *wo* to the OJ sentence-final particle *wo*, which is claimed to be emphatic; Tokieda thus claims that the original function of object marking *wo* was emphatic. Whatever is meant by emphatic in this context, it cannot mean, for example, focus, since *wo* marked objects in OJ are typically definite and presupposed.

(52)

$$
\begin{array}{c}
\text{CopP} \\
\diagup\diagdown \\
\text{DP} \quad \diagup\diagdown \\
\text{Cop} \quad v\text{P} \\
wo \quad \diagup\diagdown \\
\text{DP}_{\text{agent}} \quad v \\
\diagup\diagdown
\end{array}
$$

Source: VP v [nominal]

↓ ↓   ↓   ↓

Result: [$_{\text{AspP}}$ O   wo [$_{v\text{P}}$ A   VP]]

In (52), as in (51), a source structure involving copula+nominalization is reanalyzed as monoclausal. The projection containing the original copula is reanalyzed as AspP, similar to the reanalysis of the copula as an auxiliary in Cariban. The rest of the structure remains the same. The most controversial aspect of (52) is likely to be the hypothesis that earlier Japanese may have had a right-branching copula. But even at the OJ stage, Japanese gives evidence for right-branching functional projections, such as the aspectual auxiliary *ari* 'be', the modal auxiliary *e* 'be able', and the negative imperative *na*, all of which appear to the left of the lexical verb (Whitman 2005).

In this section we have presented typological evidence suggesting that both the alignment and transitive constituent structure properties of OJ nominalized clauses fit into a larger cross-linguistic pattern. Nominalized clauses may provide the diachronic source for non-accusative alignment and for a synchronic pattern where the object appears outside the minimal projection containing the subject and the verb.

6.3 After OJ: the reanalysis of *no* as nominative

As we have seen, in OJ the subject can be marked by *ga* or *no*, but their distribution is quite different. *Ga* marks the external argument of transitive/unergative verbs but not the internal argument of an unaccusative. *No*, on the other hand, patterns like a nominative case marker in that it can mark both the external argument of a transitives and the internal argument of intransitives, as we saw in Sect. 4.1:

(53) a. 弥騰里兒<u>能</u>   知許布我其登久
        midorigwo   ***no***   ti   *kop-u*   *ga*   *gotoku*   (MY18/4122)
        infant   Gen   breast   desire-Adn   Agt   like
        'like a child desires its mother's milk'

    b. 真木<u>乃立</u>   荒山中尓
        makwi   **no**   tatu   ara   yama   naka   (MY 3/241)
        tree   Gen   stand   rough   mountain   inside
        'in the rough mountains covered with trees'

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In (53a) *no* marks the subject of the transitive, and in (53b) it marks the subject of the unaccusative. The two particles *ga* and *no* behave differently at the syntactic level as well. Yanagida (2006) shows that when the subject and object are case-marked, the object always precedes the subject, as we saw in Sect. 4.2. But there are a few cases of *no*-marked subjects which violate this generalization. These are illustrated in (54). (Other *Man'yôshû* examples are 196, 2772, 2831, 3689.)

(54) a. 春雨 乃　　　　　与久列杼　　　吾等乎沾
          parusame   **no**   *yokure-do*   ware   **wo**   nuras-aku
          spring rain Gen   avoid-although   I   Obj   drench-Adn
                                                                (MY 9/1697)
          '(that) the spring rain, however (I) try to avoid it, drenches me.'

      b. 彼所毛加 人之　　　　　　吾乎事 将成
          Soko   *mo ka* pito   **no**   wa *wo*   koto   nas-am-u?
          That   too Q   people Gen   I-Obj   things say-Conj-Adn
                                                                (MY 512, 1329,1376)
          'Do people say that of me too?'

In (54) *no* appears in a position preceding *wo*. Although this configuration is rare in the *Man'yôshû*, it becomes widespread in *kunten* glosses written early in EMJ. The following examples are taken from the *Konkômyô Saishô Ôkyô* 'The Sutra of Golden Light' (*kunten* text ca. 830; interpretations are based on Kasuga 1969).

(55) a. yoki   wotoko   yoki   womina   **no** ...   sinkyau   no
          good   men   good   woman   Gen/Nom   reverent   Gen
          kokoro   **wo**   nasamu   (K 3-5:46)
          mind   Acc   produce
          '(that) good men and good women... might produce a reverent mind'

      b. yoki   wotoko   yoki   womina   **no** ...   Sanzyou   dou
          good   man   good   woman   Gen/Nom   Triyāna   way
          wo   syusemu   (K 3-5:50)
          Acc   practice
          '(that) good men and good women might master the Triyāna doctrine'

Another significant development revealed in this early EMJ text is that subject marking *ga* is used only in the form of *aga* 'I.Subj' and *naga* 'you.Subj'; nominal subjects are never marked by *ga*.[35] In the *Man'yôshû* the pronominal subjects *aga*

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[35] There is one counter-example in the *Konkômyô Saishô Ôkyô* where a nonpronominal subject takes *ga* and the object takes *wo*, in (i).

(i)   我   弟   捨身   (K 10-26:192)
      waga   wotofito **ga**   mi   **wo**   tutete...
      my Gen   brother   Agt   oneself Acc   sacrifice
      'My brother sacrificed himself.'

and *naga* are strictly adjacent to the verb, but in the *Konkômyô Saishô Ôkyô* they can occur in sentence initial position, preceding a *wo*-marked object, as shown in (56).

(56) a. **wa ga** katari **wo** idas-are-mu toki... (K 8-15:144)
  I Agt words Acc produce-Pass-Presum time
  'the time when I (was able to) produce words'
  b. **na ga** yoku kono Myaugyau-wau **wo** rufu-si...
  you Agt successfully this Myaugyau-wau Acc propagate
  (K 8-15:146)
  'you propagating this *Myô-kyô* successfully...'

It appears from this data that *ga* as an active case marker, in the formal sense we have defined in this paper, was lost early in the EMJ period. The limitation of *ga* to first and second person pronouns was probably a step on the way in this process. (Recall that in many languages, active case is restricted to first and second personal pronouns.)

Finally, in Sect. 4.3.1 we saw evidence for a pronominal active prefix *i-* in OJ. In the *Konkômyô Saishô Ôkyô*, however, there are many instances of the post-nominal particle *i* marking the agent arguments of transitive/unergative verbs, as shown in (57):

(57) Ware **i** ... ti ga sakai **wo** tuutatus-eri. (K 8-19:155)
  I Nom wisdom Ga border Acc pass-Rslt
  'I passed through the border of wisdom.'

As we saw in Sect. 2.3.1, Vovin (1997) analyzes the postnominal particle *i* in OJ as an active (agentive) marker. However, considering the fact that early *kunten* texts were heavily influenced by Korean glossing for Chinese Buddhist texts, it is possible that subject marking *i* is a borrowing of the Korean nominative marker *i*. This would be consistent with the view of Vovin (2005) that the much rarer subject marker *i* found in OJ is a Korean loan. In any case, EMJ *i* patterns like *no*, rather than OJ *ga*, in that it appears in a position preceding *wo*.

The word order facts suggest that Japanese was well on the way to developing accusative alignment even in nominalized clauses by the early EMJ period. Transitive subjects, regardless of the phonetic form of their case marker, were assigned case in a position higher than *wo*-marked objects. This case was spelled out as *ga*

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footnote 35 continued

The eventual reanalysis of *ga* as a nominative particle in Tokyo and Kansai Japanese is a topic that far exceeds the scope of this paper. Yamada (2000) examines the increase in the frequency of *ga* by comparing the original text of the *Tale of Heike*, which is believed to reflect the language of the fourteenth century, with the Jesuit romanized text of *Heike*, known as the *Amakusa Heike*, published in 1592. He observes that many of the unmarked subjects in the Tale of *Heike* came to be marked by *ga* in *Amakusa Heike*. This may indicate that *ga* reappeared as a nominative case in the late 16th century. The matter is confounded by the association of *ga* and *no* with pejorative and honorific functions, as reported by Jesuit grammarians in the early seventeenth century. Interestingly, according to Yamada's observation, *ga* in this period is used on the subjects of unaccusative verbs and adjectives but rarely on the subjects of a transitive/unergative verb. This contrasts directly with the distribution of *ga* in the *Man'yôshû*.

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(on first and second person pronouns), *i* (on some agentive subjects), or *no* (the elsewhere case).

7 Conclusion

In this paper, we have proposed that Japanese at its oldest attested stage, the central dialect OJ of the eighth century, shows evidence of active alignment. OJ displays a split in case marking beween main (conclusive) and nominalized clauses. Main conclusive clauses are accusative. Nominalized clauses display active alignment in case marking and cross-referencing of arguments on the verb through prefixation. The distinctive O *wo* S V pattern of transitive nominalized clauses identified by Yanagida (2006) is consistent with a formal analysis of active alignment where the external argument receives inherent active case *in situ*. Cross-linguistic comparison shows that nominalization is a widespread source for non-accusative alignment, as well as for a pattern where the surface position of the object is higher than the subject.

Appendix 1: Bare objects in relative clauses

The possible counter-examples to Miyagawa's generalization in (5) are given below. Phrasal objects can appear with adnominal relative clause predicates when they occur in main clause initial position, as shown in (58).

(58) a. [Tomo-no Ura-no iso-no murwo-no kwi-Ø]
          Tomo Bay Gen beach Gen cypress Gen tree
          [[pro mimu-goto-ni api-misi] imo]pa   wasura-ye-me yamo   (MY 3/447)
          see wheneversee maid-TOP   forget-AUX Q
          'Whenever I see the cypress-tree by the beach beside Tomo Bay, would
          I ever forget my dear who stood by me and saw it?'
      b. [Kadusika no Mama no iriyeni utinabiku tamamo-Ø]
          Kazushika Gen Mama Gen inlet in wave seaweed
          [[pro kari-kyemu]tekwona] si   omopo-yu   (MY 3/433)
          cut-AUX maid FOC   remembee-AUX
          'I remember the maid who gathered the waving seaweed in the inlet
          of Mama of the Kazushika region.'

The phrasal objects in clause-initial position in (58) are left dislocated to the left peripheral topic position. A left dislocated topic may serve as what is known as *jokotoba* 'introductory stanza', an important rhetorical device used throughout the *Man'yôshû*. The introductory stanza prefaces the contents of the succeeding verse. Note that a bare oblique NP can also be left dislocated out of a relative clause with an intransitive predicate, as in (59).

(59) **[Yupuyami-no konopa** Ø] [[pro komoreru] tukwi] matu gotosi.
evening-dark Gen tree-leave hide moon wait like
(MY 11/2666)
'I feel as if I were waiting for the moon hidden behind an evening tree.'

In OJ, not only the object of a transitive verb but also the locative adjunct of an intransitive verb can be morphologically bare. The bare NP in (59) is not a counter-example to Miyagawa's generalization on two counts: first, it is an adjunct and thus is not assigned structural case; second, it occurs in main clause initial position and thus may be interpreted as left dislocated.

In other cases of bare NP adjuncts we know that the first explanation is at work. The two bare NP adjuncts *ama no sita* 'the land' (lit. 'under the heavens') and *tamapoko-no miti* 'road' can appear inside an adnominal clause: there are four occurrences of *ama-no-sita* and six of *tamapoko-no miti*, as illustrated in (60). (For other examples, see MY 162, 207, 230, 1738, 3276, 4006, 4098, 4465.)

(60) a. [Opotu no miya ni **ama no**
Otsu Gen Palace to heaven Gen
sita Ø sirasime-kyem-u] sumyeroki (MY 1/29)
under governed emperor
'the emperor who came to the Palace of Otsu to rule the land.'
b. naku tori no kowe mo kikoye-zu
sing bird Gen sound Foc hear-not
[**tamapoko no miti** yuku] pito (MY 2/207)
Epithet Gen street go people
'people who pass on the street, not hearing the songs of birds'

Ama no sita 'land' and *tamapoko-no miti* 'road' are analyzable as compound nouns and thus are probably not true counter-examples. The word *tamapoko* belongs to the category of so-called *makura kotoba* 'pillow words' or epithets, which are fixed designators of the referent that follows them. They are conventionalized and often unintelligible. There are two genuine count-erexamples, listed below.

(61) a. [Akikaze no samuki asaake wo **Sanu no**
fall wind Gen cold early morning Obj Sanu Gen
oka Ø kwoyu-ramu] kimi ni kinu kasa masi wo
hill cross-AUX lord to dress lend-Aux-Excl
(MY 3/161)
'In the early morning when the autumn wind is cold, I wish to lend my dress to the lord who is going over the hill of Sano.'
b. [Warafa ga mi ni pa yupipata no swode tuke
young Gen me at Top color-printed Gen sleeve with
goromo Ø ki-si] ware wo (MY 16/3791)
clothes wear-P.Adn I-Excl
'At a young age, I was like a child wearing clothes with sleeves printed in colors.'

Appendix 2: *Wo* in imperative and conclusive clauses

Eight hundred three instances of *wo*-marked objects in the *Man'yôshû* are listed in
Koji (1988). (These do not include *wo-mi* constructions, *wo* used for *makurako-
toba* epithets, and occurrences with other particles such as *wo-ba*.)[36] Most of the
803 tokens appear in nominalized clauses, as expected; that is, the predicates in the
irrealis (*mizenkei*) conditionals, continuative (*renyôkei*), adnominal (*rentaikei*),
realis (*izenkei*), and *–aku* nominal clauses. There are, however, some exceptions:
Six instances of *wo*-marked objects appear with the predicate in the imperative form
(62), and 34 appear with the conclusive predicate in main and purposive clauses
marked by *to* (63–64).

(62)   Imperative: (6 tokens)
        Aki no   yupupye   wa   ware wo   sinopas-e.   (MY 20/4444)
        autumn Gen   evening   Top   me   Obj   remember-Imp
        '(On) autumn evenings, remember me.'

(63)   Main clause conclusive: (23 tokens)
        a. Putari site   musubisi   pimo wo   pitori site   are pa
            together   tied   cord Obj   alone   I Top
            toki   mi-zi.   (MY 12/2919)
            untie   try-Neg.Conj.Conc
            'The sash cords that we tied together, I will surely not untie alone.'
        b. Ware-wo   wasuras-u   na.   (MY 14/3457)
            me-Obj   forget-Conc   Neg.Imp
            'Don't forget me.'

(64)   Conclusive in *to*-marked clauses: (11 tokens)
        tama   wo   pirop-u   to   (MY 7/1220)
        jewel   Obj   find-Conc   Comp
        'in order to find the jewel'

There are 119 additional instances of *wo*-marked objects that precede *to*-marked
clauses, but they may be taken as arguments of elided higher verbs such as *omopu*
'think' or *ipu* 'say'. In these examples, *wo*-marked objects are arguments of non-
conclusive, non-imperative clauses, as illustrated in (65).

(65)   Kimi   wo$_i$ [pro$_i$ sakiku   are   to]   (omopite)
        lord   Obj   safe   be   Comp   (thinking)
        ipapibe   sue-t-u.   (MY 17/3927)
        offering vessel   place-Perf-Conc
        '(Thinking) of my lord, 'May he be safe,' I placed the offering vessel.'

---

[36] According to Koji (1988), there are a total of 1,557 instances of object marking *wo* in the *Manyôshû*.

As discussed in Sect. 5.2, we assume that OJ has no ECM constructions; the *wo*-marked subject of the inactive verb is in fact the argument of the higher verb *omopu* 'think', which has been deleted in (3927) but standardly interpreted as underlyingly present in this and similar examples. There are also in Koji (1988) at least three examples of *wo*-marked objects that precede *to*-marked clauses; these however should be taken as dislocated topics (MY 2/148, MY 10/2228, MY 20/4300). They are not arguments of embedded *to*-marked clauses but serve as *jokotoba* 'intro-ductory stanzas', as discussed above. There are also four occurrences of *wo*-marked objects embedded in *–rasi* clauses, as in (66) (MY 13, 3145, 4111, 4427).

(66) Wagimoko si a wo   sinop-u   ras-i.   (MY 12/3145)
      my.girl Emph me Obj think-Conc   seem-Conc
      'My girl seems to be thinking of me.'

These data show that *wo*-marking had spread beyond nominalized clauses in the OJ period, but its distribution appears quite restricted. Most instances of *wo*-marking with conclusive predicates involve 'that' clauses such as (64–65), and many of the conclusive main clause examples such as (64a) involve topicalized objects. This suggests a scenario for the spread of *wo* marking to conclusive clauses. Topicalized *wo*-marked objects with propositional attitude verbs selecting a *to*-clause comple-ment may have been reanalyzed as extracted directly from the *to*-clause, especially in contexts like (65), where the higher verb is dropped.

Support for this scenario comes from the rarity of *wo*-marking in imperatives. Koji (1988) cites only six examples. Four of these (MY 4009, 4444, 4177, and 4179) are from songs in volumes 17–19 of the *Man'yôshû*, composed by Ootomo no Yakamochi or his associates in the period around 750. Of the remaining two examples, MY 3764 was composed around the same period by Nakatomo no Yakamori while *wo* in MY 2352 is analyzable as a vocative particle. This suggests that *wo*-marking in imperatives was a relatively late innovation. It may have arisen by analogy with *wo*- marking in infinitive clauses, triggered by a phonological merger. Four of the five clear examples cited above involve imperative predicates with root final *–s*; imperative *–ye* and lower bigrade infinitive *–e* had merged after /s/ well before the eighth century.

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