On the Reconstruction of Pre-Old Japanese Morphology: OJ Grammatical Morphemes Reflecting Pre-OJ *k- ~ *s-

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1 Introduction

In an article published in 2001, I proposed that a number of grammatical forms in initial t- and n-, including case and conjunctural particles,

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perfective auxiliaries, and nonfinite verb endings, are related to the productive regular Old Japanese copulas in n- (mainly ni and no) and t- (mainly to) and reflect various morphologizations from two alternating proto-Japanese or pre-Old Japanese copula roots *n- ~ *t- (Frellesvig 2001). In subsequent work (e.g. Frellesvig 2008, 2012, 2013, 2019), I have proposed reconstruction of a number of different aspects of proto- and pre-Old Japanese morphology. Building in part on results and proposals set out in those publications, and picking up on a briefly mentioned suggestion in Frellesvig 2010: 121, I will in this paper consider a number of grammatical forms from Old Japanese in initial k- and s- and propose that they have a common pre-Old Japanese or proto-Japanese source in two alternating roots *k- ~ *s-.

These forms include adjective predications (‘adjectival copula’) and past tense suffixes for verbs, which for example, as is well known, share the forms ki and si (with opposite distribution of adnominal and conclusive function), as shown in these examples from the Man’yōshū, the 8th century poetry anthology which contains the bulk of the texts from the Old Japanese period.

(1) Adjectival copula Past tense

<table>
<thead>
<tr>
<th>topo-ki twosa-di</th>
<th>omopi-ki .</th>
</tr>
</thead>
<tbody>
<tr>
<td>far-ACP.ADN Tosa-road</td>
<td>long.for-PST.CLS</td>
</tr>
<tr>
<td>‘The long road to Tosa’</td>
<td>‘(I) have been longing (for my beloved)’ (MYS 4.501)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ama-di pa topo-si .</th>
<th>omopi-si kimi</th>
</tr>
</thead>
<tbody>
<tr>
<td>heaven-road TOP far-ACP.CLS</td>
<td>long.for-PST.ADN my.lord</td>
</tr>
<tr>
<td>‘The road to heaven is long’</td>
<td>‘My lord, whom (I)’ve been longing for’ (MYS 4.644)</td>
</tr>
</tbody>
</table>

1 I will draw on and make reference to findings presented in those papers, but not rehearse or repeat background, documentation or argument.
2 OJ is the oldest attested stage of Japanese, largely the language of the 8th century. For the general descriptive framework for OJ morphology and the transcription of OJ, as well as general facts about OJ, see Frellesvig 2010 (in particular chapters 1 to 3). In cited examples from OJ, phonographically written text is transcribed in italics, whereas logographically written text is transcribed in plain type. Examples will be drawn from the Man’yōshū. The poetic texts from the OJ period and the language contained in them may easily be accessed through the Oxford-NINJAL Corpus of Old Japanese (ONCOJ), which is heavily annotated and associated with powerful search functionality, at https://oncoj.ninjal.ac.jp/.

Abbreviations used in this paper which are not included in the Leipzig glosses are: ACP adjectival copula; ADN adnominal; CLS conclusive; FP focus particle; MPST modal past; NCONJ negative conjectural; NML nominal; PFX prefix; PROV provisional; RSP respect; SPST simple past. Language abbreviations: EMJ Early Middle Japanese (800-1200); OJ Old Japanese; pJ proto-Japanese.

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These two different suffixes (adjectival copula and simple past tense), however, do not share just the forms *si and *ki, but in fact exhibit striking form overlaps through their paradigms. We will look at their forms together with a range of other grammatical OJ forms in k- and s-. First the adjectival copula and its forms will be introduced (§2) and then compared with the forms of the simple and modal past tense auxiliaries -ki and -kyer- (§3). The following sections discuss other OJ grammatical forms in k- and s-: focus particles ka and so (§4), su in the negative auxiliary -zu and semblative copula nasu (§5), the demonstratives ko and so, and the two irregular grammatical verbs ko- ‘come’ and se- ‘do’ (§6). Finally, §7 will summarize and discuss, proposing that all the forms considered derive from two alternating pre-OJ or pj demonstrative roots *k- ~ *s-, reflected in OJ as the demonstratives ko and so.

2 The Adjectival Copula

Adjectives may in OJ be used in various ways (see Frellesvig 2010: 79-93), but the main use is predication by a bound, inflecting suffix which here is referred to as the ‘adjectival copula’ because of its function to predicate adjectives. The three main forms of the adjectival copula, conclusive, adnominal and infinitive (adverbial), are exemplified in (2)-(4).

(2) a ga mune ita-si
   I GEN heart painful-ACP.CLS
   ‘My heart aches’ (MYS 15.3767)

(3) kiywo-ki tuku-ywo
   clear-ACP.ADN moon-night
   ‘A clear moon-lit night’ (MYS 20.4453)

(4) kimi ga yuki ke naga-ku nari-nu
   my.lord GEN go day long.ACP.INF become-PFV.CLS
   ‘It has been a long time since you left’ (MYS 5.867)

The adjectival copula inflects largely for the same categories as verbs, including finite conclusive, adnominal and exclamatory forms, a range of non-finite subordinating forms, and combinations with the negative and the conjectural auxiliaries. The full paradigm of the adjectival copula is composite and suppletive, as shown in (5). Some of these forms are very frequent, others quite rare. The paradigm of the following EMJ period is somewhat simpler and in particular without alternative forms for morphological categories and without
the negative, conjectural and nominal forms (see Frellesvig 2010: 233 about the EMJ paradigm).3

(5) Conclusive si
Adnominal ki
Exclamatory sa
Exclamatory kyere
Infinitive ku
Infinitive mi
Gerund kute
Gerund mito
Conditional kyeba
Conditional kupa
Provisional kyeba
Provisional kyereba
Concessive kyedo
Concessive kyreredo
Nominal kyeku
Negative nominal kyenaku
Conjectural kyemu

These forms may be organized according to shape as shown in (6).

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3 After OJ, sa and mi changed to become nominalizers, still used in modern Japanese: tuyo-sa ‘strength’, tuyo-mi ‘forte (strong point)’, but in OJ they took part in predicating adjectives. Mito was lost after OJ.
Kute, kupa and mito are transparently built on ku and mi, respectively. The forms in kye may be thought to derive from contractions of ki with a form in initial a (*i-a > ye), further divided into two subsets, as in (7).

(7) (a) kyeba < *ki-aba, kyedo < *ki-ado, kyeku < *ki-aku, kyenaku < *ki-anu-aku, kyemu < *ki-amu
(b) kyere < *ki-are, kyereba < *ki-ari-aba, kyeredo < *ki-ari-ado

The forms in (a) involve morphological material independently attested or well reconstructed with verbs: *aba 'conditional' (probably < *amu-pa 'conjectural-TOP'), *ado 'concessive' (?< *amu-to), aku 'nominalizer', *an- 'negative', *am- 'conjectural'. The forms in (b) have the existential verb ari interpolated between the adjectival copula root and the inflectional morpheme; it is the forms in (b) from among the forms in (5) which survive into EMJ and beyond, whereas the forms in (a) are lost. Note that also the nominal forms were lost, as part of the loss of the inflectional category of nominal also for verbs in general.

Other than the two -mi based forms in the paradigm, which I will say no more about here, we thus find forms built on ku, ki, si, and sa in the paradigm, suggesting alternating roots *k- ~ *s-.
3 Past Tense Auxiliaries

As is well known, OJ (as well as EMJ) had two past tense auxiliaries, simple past and modal past, exemplified in (8)-(9) and (10)-(11), respectively.

(8) kapyeri-kyeru pito kitar-eri to ipi-sikaba
    return-come.STAT person arrive-STAT that say-SPST.PROV
    potopoto sini-ki.
    almost die-SPST.CLS
   ‘When people said that someone who was coming back (from exile) had arrived, I almost died (thinking it was you)’ (MYS 15.3772)

(9) imo ga mi-si aputi no pana pa
    beloved GEN look.at-SPST.ADN chinaberry.tree GEN flower TOP
    tiri-nu besi.
    scatter-PFV must
   ‘The flowers of the chinaberry tree which my beloved looked at must have scattered.’ (MYS 5.798)

(10) wa ga yadwo no pana tatibana tiri-ni-kyeri.
    I GEN house GEN flower tachibana fall-PFV-MPST.CLS
   ‘The flowers of the tachibana by my house had fallen’ (MYS 10.1969)

(11) ware pa ki-na-mu to ipi-kyereba
    I TOP come-PFV-CONJ that say-MPST.PROV
   ‘When I said that I would come, …’ (MYS 9.1740)

Looking at the full paradigms of these two auxiliaries, simple past (12) and modal past (13), it is clear that the simple past has a suppletive paradigm, while the forms of the modal past are like those of the irregular existential verb ar-; and it is conspicuous that both paradigms have widespread form overlap and identity with the ki and si based forms of the adjectival copula. Note that some of the simple past tense forms were lost in the transition to EMJ (or in early EMJ): conditional kyeba and the two nominal forms kyeku and siku.
Form identity between the paradigms of the adjectival copula and the past tense auxiliaries is as in (14):

<table>
<thead>
<tr>
<th>Simple past</th>
<th>Modal past</th>
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<tbody>
<tr>
<td><strong>si</strong> conclusive</td>
<td><strong>kyere</strong> exclamatory</td>
</tr>
<tr>
<td><strong>ki</strong> adnominal</td>
<td><strong>kyeredo</strong> concessive</td>
</tr>
<tr>
<td><strong>kyemu</strong> conjectural</td>
<td><strong>kyereba</strong> provisional</td>
</tr>
<tr>
<td><strong>kyeba</strong> conditional, provisional</td>
<td><strong>kyeraku</strong></td>
</tr>
</tbody>
</table>

The modal past forms are transparent contractions of *ki* with the existential verb *ar-, kyer-* < *ki-ar-, like we saw with some of the forms of the adjectival copula in (7).

For the simple past, we first of all find identity with the adjectival copula in the forms *si* and *ki*. The syntactic function is opposite in the two paradigms, but as reported in Frellesvig (2012) the morphologically expressed differentiation between conclusive and adnominal function is most likely a secondary, late pre-OJ development (see also §5 below). This is well
illustrated by the fact that *si and *ki are found with the same additional morphological material, see (15)4.

The remaining forms from the simple past paradigm are shown in (15) in three subsets. The forms in (a) are identical with those in the adjectival copula paradigm and have the same diachronic derivation, cf. (7.a) above. Those in (b) are not identical, but significantly they are built on the shared form *si contracted with the same additional morphological material as is found in (a) and in the adjectival copula (cf. (7)); the forms in (a) and (b) thus form part of the same pattern: built on *ki and *si contracted with the same morphological material, with both *ki and *si and the additional morphological matter shared with the adjectival copula. Finally, the forms in (c) involve a stem *sik, with the same morphological material attached.5

(15) (a) kyeba < *ki-aba, kyeku < *ki-aku, kyemu < *ki-amu
(b) seba < *si-aba, siku < *si-(a)ku
(c) sikado < *sik-ado, sikaba < *sik-aba, sika < *sik-a

It is very difficult to believe that this widespread form identity and shared morphological material between the adjectival copula and the two past tense suffixes could be due to chance. Rather, it suggests very strongly that they are closely related, with the adjectival copula, which displays the most variation, being the oldest and providing a clear morphological link with and between the other two, and that at least the forms in (14) and (15.a-b) reflect the same source as the adjectival copula, going back to the alternating roots *ki ~ *si.

Functionally, this may be thought to have developed from a copula.6 First, the function of the adjectival copula was to predicate adjectives, i.e. that of a copula. Second, development of tense markers from copulas has been proposed at least as early as Franz Bopp who posited copula origins for many conjugational endings in Sanskrit (1816). For Japanese this is straightforwardly plausible both because of word order [nominal, predicate copula], and because of the fact that the two past tense suffixes attach to a stem of verbs

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4 Note also that there are examples of the conclusive form of the adjectival copula modifying a noun even if they are rare, e.g. kagurwo-si kami ‘black-ACP.CLS hair; black hair’ (MYS 16.3791).
5 Note that whereas *aba, *amu, *ado and *aku form part of standard reconstructions of pre-OJ verbal morphology, the *a posited here as part of the exclamatory form *sika is not as readily found. It is, however, tempting to see the adjectival copula form *sa which functionally is similar to, but not identical with, simple past *sika as involving the same material. And it is further possible that *sa and *sika are related to the anaphoric, demonstrative adverbs *sa ‘that way’ and *sika ‘that way’; cf. §6 on demonstratives.
6 See Kuznetsov (this volume) for additional hypotheses about the etymology of the modal past kyer-.
(the so-called ren’yōkei of traditional Japanese grammar) which is segmentally identical with both the infinitive and with the derived deverbal nominal, e.g. omopi in (1) which other than its use as a stem, could be infinitive ’yearn for’ and a derived noun ’yearning’, or similarly sini in (8) which is also exemplified as a deverbal nominal in (27) below; cf. further (§6) about deverbal nominals.7

4 Focus Particles

The particles ka and so fit well into the pattern proposed above of grammatical forms in k- and s- with copular function, or functions that can develop from copulas. Ka and so are well known for taking part in the focus construction kakari-musubi; exemplified in (16)-(17), where a focused constituent is marked by ka or so and the predicate of the sentence is in the adnominal form (see Frellesvig 2010: 247-257 for the basic facts about kakari-musubi; Quinn forthcoming for an insightful functional description and analysis).9 As suggested in the translations, many examples of kakari-musubi can felicitously be translated into it-clefts (or other clefts).

\begin{itemize}
\item (16) oyodure \textit{ka} wa ga kiki-turu
\hspace{5pt} lie \textit{KA I GEN} hear-PFV.ADN
\hspace{5pt} ‘Was it a lie that I heard?’ (MYS 3.420)
\item (17) wa ga kwopuru kimi \textit{so} kizo no ywo ime ni
\hspace{5pt} I \textit{GEN} love.ADN my.lord SO last.night GEN night dream DAT
\hspace{5pt} mi-ye-turu
\hspace{5pt} see-PASS-PFV.ADN
\hspace{5pt} ‘It was you, my beloved lord, that I saw last night in a dream’ (MYS 2.150)
\end{itemize}

However, we also find many examples of sentence final ka or so concluding a nominal predication. (18) is a 5-7-5-7-7 waka poem in which the first two verse lines (\textit{ware nomwi so, kimi ni pa kwopuru}) show the kakari-musubi

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7 It is worth noting that also a number of other verb suffixes which may be thought to derive from the same source as the \textit{t-} and \textit{n-} copulas attach to this stem (perfectives, gerund formant, etc., see Frellesvig 2001).

8 In OJ, so was the main form of that particle, with a variant zo being somewhat rarer (with more than three times as many instances of so as of zo), but in EMJ zo becomes the dominant and then sole form. It is generally assumed, also here, that so is the older form.

9 It should be borne in mind here that a main function of the ‘adnominal’ form was to form nominalized clauses, in addition to its function as the predicate in relative clauses after which it was named.
construction with *so*, and final three lines have a subject which is a nominalized clause with the nominalizer *koto* (*wa ga sekwo ga, kwopu to pu koto pa*) and a nominal predicate (*koto no nagusa*) concluded by *so*.

(18) ware nomwi so kimi ni pa kwopuru.
   I only SO my.lord DAT TOP yearn.for.ADN
   [wa ga sekwo ga kwopu to pu koto pa]$_{SBJ}$
   I GEN husband GEN yearn.for COMP say thing TOP
   [koto no nagusa]$_{PRED}$ so
   word COP.ADN comfort SO
   ‘It is only me who yearns for you (not the other way around). It is false words of comfort that you, my husband, say that you yearn for me’
   (MYS 4.656)

Other examples of nominal predications concluded by *ka* and *so* include (19)-(20), both with an anaphoric referential null-pronoun subject (the referent of which is mentioned in the preceding sentence) of the nominal predicate.

(19) … kapa no oto i kiywo si.
   … river GEN sound, clear
   [∅]$_{SBJ}$ […] puno no nami no sawaki]$_{PRED}$ ka
   iti … boat GEN wave GEN noise KA
   ‘The sound from the river is clear. Is it (= the sound) the noise from the waves of the boat (which Hikoboshi of the Tanabata legend) is rowing?’
   (MYS 10.2047)

(20) yuki na pumi so ne.
    snow, PROH step PROH
    [∅]$_{SBJ}$ [sibasibamo pura-nu yuki]$_{PRED}$ so.
    iti over.and.over fall-NEG snow SO
    ‘Don’t step on the snow. It (= the snow) is snow that doesn’t fall often.
    (MYS 19.4227)

Examples such as (19)-(20) above demonstrate that an important function of *ka* and *so* was to conclude nominal predications, i.e. the function of a copula.

Furthermore, it is worth here recalling Ohno’s (1993) proposal that the *kakari-musubi* construction originated in inversion of (a) nominalized subject clauses with the predicate in the adnominal form and (b) nominal predicates marked by one of the focus particles, such that for example the
diachronic source of (16) above would have been like (21), with *ka* concluding the nominal predication.

(21) \[wa \text{ ga kikituru]SBJ \ [oyodure]PRED \ ka \]

Narrog 2021 is an impressive and immensely useful literature review of various hypotheses about the origin of the *kakari-musubi* construction and of the history of research on that topic; it may be consulted for many more references. In his survey, Narrog notes that ‘in Japanese linguistics, this [=Ohno’s] hypothesis has been met with scepticism, mainly for the reason that the expected source structures with verbs are largely absent in OJ’ (2021: 22). However, ‘non-inverted’ examples with a nominalized clause as subject and a nominal predicate are in fact not that difficult to come by, e.g. (22)-(23) with the nominalized clauses marked by *pa* and *mo*, and (24)-(26) with bare nominalized clauses.

(22) \[nagara\text{-tiru pa]SBJ \ [nani no pana]PRED so mo . \]
fall-scatter.ADN TOP what COPflower SO EMP
‘Which flower is it that is scattering?’ (lit: ‘That which is scattering, which flower is it?’) (MYS 8.1420)

(23) \[senoumi to nadukete aru \text{ mo]SBJ} \]
Se-no-umi COMP call be.ADN also
\[sono yama no tutum-yeru umi]PRED so . \]
that mountain GEN dam.in-STAT.ADN sea SO
‘It is the sea which dams in that mountain that is called Se-no-umi’ (lit.: ‘That which is called Se-no-umi is the sea which dams in that mountain’) (MYS 3.319)

(24) \[kimi ni ap-yeru]SBJ \ [koyopi]PRED ka
my.lord DAT meet-STAT.ADN tonight KA
‘It is tonight that I met you / Is it tonight that I met you?’ (lit. ‘That I met you is tonight’) (MYS 8.1613)

(25) \[sawosika no tuyu wake naka-mu]SBJ
male.deer GEN dew brush.aside cry-CONJ.ADN
\[takamatwo no nwo]PRED so \]
Takamato GEN field SO
‘It is the field of Takamato where the male deer will cry out, brushing aside the dew’ (lit. ‘That/where the male deer will cry out, brushing aside the dew, is the field of Takamato’) (MYS 20.4297)
The data presented in this section shows first of all that it is highly plausible that copula is the basic, or original, function of ka and so. In that way, ka and so fit the form and function pattern suggested in the preceding sections. Second, it may be seen that Ohno’s hypothesis about the origin of *kakari-musubi* should not be discounted.\(^{10}\)

5 Negative and Semblative

Pursuing further this hypothesis of a *k-~ s-* alternation between grammatical forms, it may be proposed that the infinitive of the adjectival copula, *ku*, took part in a similar relation with *su*, a formant which may be thought to form part of etymology of the negative auxiliary *–zu* and the semblative copula *nasu*. This *su* shares remarkably similar morphology and overlapping functions with *ku*.

The negative auxiliary has the following main forms and uses:

(27) Infinitive (adverbial)

\[
\text{a ga mopu imo ni apa-zu sini se-me}
\]

I GEN yearn.for beloved DAT meet-NEG.INF dying do-CONJ

‘I will die without meeting my beloved’ (MYS 15.3740)

(28) Conclusive

\[
yuki wo … miredomo aka-zu
\]

snow ACC look.at.CONC tire.of-NEG.CLS

‘I never get tired of looking at the snow’ (MYS 17.4001)

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\(^{10}\) If Ohno’s hypothesis is correct, the ‘inversion’ probably came about as right dislocation of the bare (nominalized clausal) subject. Right dislocation was quite common in OJ (at a rough estimate, just under one in five main clauses in the poetic OJ texts have a right dislocated constituent; even if this is skewed by the genre, it is significant proportion). I am not sure why Narrog (ibid.) believes that an intermediary stage ‘XP=so […] verb=pa’ would be necessary or involved. ‘Inversion’ of attested sentences like those in (24)-(26) is all that is needed.
Adnominal
miredo aka-\textit{nu} yosinwo no kapa
look.at.CONC tire.of-NEG.ADN Yoshino GEN river

‘The river of Yoshino which I never get tired of looking at’ (MYS 1.37)

The full OJ paradigm of the negative includes forms for most of the categories which verbs inflect for, as shown in column (a) of (30). This is a suppletive paradigm that combines forms in \textit{n}-, which have the same endings as regular lexical consonant stem verbs,\textsuperscript{11} and forms built on \textit{zu}. For the infinitive and gerund there are rare forms in \textit{n}- (\textit{ni}, \textit{nito}), which were lost from the language in the transition to the following EMJ period. It may be thought that the OJ paradigm represents the last stage before the completion of a reformation of an earlier, pre-OJ, paradigm, as shown in (c), with a full set of regular forms in \textit{n}, with the forms in (b) replacing pre-OJ forms to give the paradigm in (a), eventually without \textit{ni} and \textit{nito} (see Frellesvig 2008: 184-189 for details about the reformation of the paradigm of the negative, including its motivation).

\begin{tabular}{|l|l|l|l|}
\hline
 & (a) OJ & (b) & (c) pre-OJ \\
\hline
Conclusive & \textit{zu} & \textit{zu} < \textit{ni-su} & *\textit{nu} \\
Adnominal & \textit{nu} & & \textit{nu} \\
Exclamatory & \textit{ne} & & \textit{ne} \\
Infinitive & \textit{zu} (~\textit{ni}) & \textit{zu} < \textit{ni-su} & \textit{ni} \\
Gerund & \textit{zute} (~\textit{nito}) & \textit{zute} < \textit{ni-su-te} & \textit{nito} \\
Conditional & \textit{zupa} & \textit{zupa} < \textit{ni-su-pa} & *\textit{naba} \\
Provisional & \textit{neba} & & \textit{neba} \\
Concessive & \textit{nedo} & & \textit{nedo} \\
Nominal & \textit{naku} & & \textit{naku} \\
\hline
\end{tabular}

The forms in (b) were based on the pre-OJ infinitive \textit{ni} extended with \textit{su}.\textsuperscript{12} This \textit{su} is traditionally thought to be the conclusive form of the verb \textit{se-} ‘do’ and accordingly the use of \textit{zu} as infinitive said to be secondary. However, the morphology of \textit{zu}, with direct affixation of \textit{te} and \textit{pa} to form further forms, and the use as infinitive (adverbial), is exactly like the use of \textit{ku} in the

\textsuperscript{11} Except that the gerund in -\textit{to} is slightly irregular: Regular verb gerunds have -\textit{te}, but \textit{to} is also found in the paradigm of the adjectival copula in \textit{mito}, cf. (5) above.

\textsuperscript{12} \textit{Ni} itself is usually thought to be cognate with the Korean negation \textit{ani}. See Frellesvig 2019: 247-248 about the reinterpretation of the negative adverb \textit{ani}, vestigially attested in OJ, as a verb ending, and Frellesvig 2008: 184 about the resegmentation from V(erb)-\textit{ani} to V.a-\textit{ni}.
paradigm of the adjectival copula, and it seems more likely that *zu* is primarily the infinitive form and that the use of *zu* in conclusive function is secondary and an extended use of the infinitive; see further below in this section about this.

The second grammatical form to be considered in this section is the semblative copula (‘be like’) *nasu* (which has an Eastern OJ variant *nosu*) which is used in the following ways (although the conclusive use is rare).

(31) Adverbial

\[ \text{asa-pi } \text{nasu } \text{magupasi } \text{mo} \]
\[ \text{morning-sun SMBL beautiful EMP} \]

‘It (= the province of Ise) is beautiful like the morning sun!’ (MYS 13.3234)

(32) Adnominal

\[ \text{matama } \text{nasu } \text{putatu no } \text{isi} \]
\[ \text{jewel SMBL two COP stone} \]

‘Two stones which are like jewels’ (MYS 5.813)

(33) Conclusive

\[ \text{kwopuraku } \text{pa } \text{puzi no } \text{takane ni } \text{pru yuki} \]
\[ \text{long.for.NML TOP Fuji GEN peak DAT fall snow SMBL EMP} \]

‘My longing for you is like the snow that falls on the peak of Fuji!’ (MYS 14.3358)

Diachronically, *nasu* may be thought to reflect the *n*-copula root *na* (cf. OJ copula *ni* and *no*, see Frellesvig 2001) and the formant *su*: *nasu* < *na-su*.

Thus, we find the same relation between *ku* in the paradigm of the adjectival copula which forms the infinitive/adverbial form, and *su* which is found in the semblative copula and in the negative, as we do between the *k*- and *s*-initial forms within and between the paradigms of the adjectival copula and the two past tense auxiliaries, here in an alternation *ku* ~ *su*.

(34) **Adjectival copula** | **Semblative copula**
--- | ---
*ku* infinitive | *nasu* < *na-su* adverbial, adnominal, conclusive

**Negative**

*ku* infinitive | *zu* < *ni-su* infinitive, conclusive
*kute* gerund | *zute* < *ni-su-te* gerund
*kupa* conditional | *zupa* < *ni-su-pa* conditional
While adjectival copula *ku* is used only as infinitive/adverbial, the *su* proposed here as part of the origin of the semblative copula and the negative was used without morphologically expressed differentiation between adverbial, adnominal and conclusive function.\(^{13}\) Morphological differentiation between conclusive and adnominal has traditionally been regarded as a basic and primitive feature of Japanese verb/predicate morphology through time (and usually is projected back on to and reconstructed for pJ), but it rather seems likely that it was in fact not a feature of early pre-OJ or pJ, but a late pre-OJ innovation (see Frellesvig 2012), and it should therefore not be surprising that we find forms which do not exhibit this differentiation.

In particular, it may be suggested that the basic function of *su* was infinitive/adverbializing, much like adjectival copula *ku* and the regular copula *ni*, and that the use of the forms it attached to was extended to conclusive, and for the semblative copula also adnominal, function. This finds a good functional parallel within OJ and EMJ in the use of the infinitive of the stative existential verb *ari* in both conclusive and infinitive function.

### 6 Demonstratives *ko* and *so*, and the Verbs *ko*- ‘come’ and *se*- ‘do’

The final forms in *k*- and *s*- to be considered here are the two demonstratives *ko* and *so* and the two verbs *ko*- ‘come’ and *se*- ‘do’.

OJ had two main demonstrative pronouns, *ko* ‘proximal; speaker’ and *so* ‘non-proximal; non-speaker’, each used on their own and with some further extended forms, e.g. the locational demonstratives *koko*, *soko*, as well as more distantly related forms, e.g. *kaku* ‘this way’ and *sate* ‘that way’ (see Frellesvig 2010: 139-43 for more detail). OJ *ko* and *so* are the direct ancestors of the *ko*- and *so*- forms in the three-term *ko-so-a* demonstrative system of Modern Japanese, but the OJ system of demonstratives was somewhat different from Modern Japanese: As shown by Hashimoto (1966), it was basically a two-term system, with ‘speaker’ vs. ‘non-speaker’ as the basic reference, and furthermore and importantly, *ko* was mostly used deictically, e.g. (35), whereas *so* mostly was used anaphorically, with, e.g. (36), or without an explicit antecedent.\(^{14}\)

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\(^{13}\) For the negative, *zu* < *ni-su* was of course not used in adnominal function, as the functions it was replacing did not include the adnominal function (cf. Frellesvig 2008).

\(^{14}\) Note, though, that the OJ demonstrative system may have gone back to an earlier pre-OJ three-term system, *i* ‘proximal’ *ki* ‘mesial’ *si* ‘distal’, from which the *i* term was lost resulting in a reinterpretation of the two remaining terms (see Frellesvig and Whitman 2008: 27-29).
(35) *are pa wasurezi ko no tatibana wo*
   I TOP forget.NCONJ this GEN mandarin.orange ACC
   ‘I will not forget it, this mandarin orange (which the poet was looking
   at)’ (MYS 18.4058)

(36) *amanogapa pasi, watas-eraba*
   Milky.Way bridge build.across-STAT.COND
   so, no pe yu mo i-watara-sa-mu
   that GEN top ABL even PFX-go.across-RSP-CONJ
   ‘If a bridge had been built across the Milky Way, she (Tanabata, the
   Weaver star) would cross on top of it, (= the bridge).’ (MYS 18.4126)

There is a fairly close functional parallel between the demonstratives *ko* and
*so* and the two irregular verbs *ko-* ‘come’ and *se-* ‘do’. The full simple para-
digms of these two verbs are shown in (37); other than the shape of the basic
stem, they inflect identically.

(37)

<table>
<thead>
<tr>
<th></th>
<th><em>ko-</em> ‘come’</th>
<th><em>se-</em> ‘do’</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conclusive</td>
<td><em>ku</em></td>
<td><em>su</em></td>
</tr>
<tr>
<td>Adnominal</td>
<td><em>kuru</em></td>
<td><em>suru</em></td>
</tr>
<tr>
<td>Exclamatory</td>
<td><em>kure</em></td>
<td><em>sure</em></td>
</tr>
<tr>
<td>Imperative</td>
<td><em>ko</em></td>
<td><em>se(yo)</em></td>
</tr>
<tr>
<td>Negative conjunctural</td>
<td><em>kozi</em></td>
<td><em>sezi</em></td>
</tr>
<tr>
<td>Optative</td>
<td><em>kona</em></td>
<td><em>sena</em></td>
</tr>
<tr>
<td>Infinitive</td>
<td><em>ki</em></td>
<td><em>si</em></td>
</tr>
<tr>
<td>Gerund</td>
<td><em>kite</em></td>
<td><em>site</em></td>
</tr>
<tr>
<td>Continuative</td>
<td><em>kitutu</em></td>
<td><em>situ</em></td>
</tr>
<tr>
<td>Conditional</td>
<td><em>koba</em></td>
<td><em>seba</em></td>
</tr>
<tr>
<td>Concessive</td>
<td><em>kurodo</em></td>
<td><em>suredo</em></td>
</tr>
<tr>
<td>Provisional</td>
<td><em>kureba</em></td>
<td><em>sureba</em></td>
</tr>
<tr>
<td>Nominal</td>
<td><em>kuraku</em></td>
<td><em>suraku</em></td>
</tr>
</tbody>
</table>

*Ko-* ‘come’ is a speaker-focused deictic motion verb, (38), and thus a straight-
forward form and verbal function match with demonstrative *ko*.

(38) *ikwoma no yama wo kwoyete so a ga kuru*
   Ikoma GEN mountain ACC crossing FP I GEN come.ADN
   ‘I come (here), crossing over Mount Ikoma’ (MYS 15.3590)
The verb se- ‘do’ is functionally more complex. Se is usually treated as a, or even the prototypical, transitive verb in modern and pre-modern Japanese and furthermore as the transitive counterpart of nar- ‘become’. Etymologically, the transitive counterpart of nar- is nas- ‘make’, but it is certainly true that se- in modern Japanese has transitive and causative uses, particularly in resultative constructions, and it is usually assumed that there is some etymological relation between se- and the transitive verb formant -s- (as for example in nas-) and also the causative formant -sase- which comes into the language in the EMJ period. However, in OJ, se- had no lexical uses and had, outside of resultative constructions, no transitivity associated with it; se- was essentially a grammatical element with the following main uses (see further Frellesvig 2013):

(a) as a pro-verb, (39)
(b) in resultative (and a few other raising) constructions, (40)
(c) to predicate activity nominals, both lexical activity nouns, (41), and (de)verbal activity nominals, (42).

(39) suga-makura aze ka maka-sa-mu kworo se ta-makura
sedge-pillow why FP roll-RSP-CONJ darling do.IMP arm-pillow
‘Why would you lie with a pillow made of sedge? Darling, lie with my arms as your pillow’ (MYS 14.3369)

The collocation makura mak- means ‘roll a pillow/headrest; lie with/use as a pillow’, and in this example, mak- is the explicit antecedent of se ‘do’. There are also many examples of pro-verb se- without an explicit antecedent.

(40) awoyagwi wo kadura ni situta
green.willow ACC hair.decoration COP.INF do.CONT
‘Making the green willow into a hair-decoration’ (MYS 5.825)

(41) iza kwo-domo tapawaza na se so
INTJ child-PL acting.foolishly PROH do PROH
‘Hey, children, don’t act foolishly’ (MYS 20.4487)

(42) izari suru ama no turi-bune
fishing do diver GEN fishing-boat
‘The fishing boats of the divers who are fishing’ (MYS 15.3609)

Pro-verb se- is a straightforward functional match with demonstrative so in its function as a pro form. It may further be suggested that it is the pro-verb use which gave rise to the resultative use of se- and that this originated in
grammaticalization or conventionalization of instances of se- to stand in for or replace lexical verbs with resultative uses, such as tukur- ‘make (into)’, or the just mentioned mak-, which in the collocation with makura in addition to its direct object frame (makura mak- / makura wo mak-) from (39), also is used in a resultative frame N wo makura ni/to mak-, see (43).

(43) urabuti wo makura ni makite
     bay.shore ACC pillow COP.INF roll.GER
     ‘Using/with the shore of the bay as your pillow’ (MYS 13.3339)

The final main use of se- is as a predicator of what I here call ‘activity nominals’. These include a quite small number of actual nouns, such as tapawaza in (41), but the great majority are (de)verbal forms such as izari ‘fishing’ in (42) or sini ‘dying’ in (27) above. These latter forms are identical in shape with the inflected verb infinitive and with the stem to which some suffixes attach, including the past tense auxiliaries discussed in §3.\(^\text{15}\) The reason I refer to these forms as ‘deverbal nominals’ is that they syntactically have a great deal in common with the ‘verbal nouns’ of NJ, e.g. benkyoo ‘studying’, in that both are predicated by se- and both clearly exhibit both nominal and verbal properties (see Frellesvig 2013).\(^\text{16}\) A significant difference between the NJ verbal nouns and the OJ deverbal nominals is of course that the former make up their own part of speech, or at least a clearly morphologically and syntactically delineated subgroup of verbs, whereas the OJ deverbal nominals were productively formed from verbs. It is still not clear what the difference was in OJ between using a verb in a simple inflected form and using it with se-.

However, for the purposes here, what is significant is that se- used with the deverbal nominals and with activity nouns functions as a simple predicative, carrying morphological information, that is, like a copula.\(^\text{17}\) This is not shared by demonstrative so, but it should be kept in mind that the relation between demonstratives and copulas is well established cross-linguistically, the latter developing out of the former. Interestingly, the uses of se- can be thought to preserve and reflect an earlier stage in the development of some of the other

\(^{15}\) In traditional Japanese grammar, all of these functions are lumped together under the label ‘ren’yōkei’. They are certainly diachronically and/or derivationally related, but in a synchronic analysis, they should be distinguished.

\(^{16}\) This shows that although verbal nouns today overwhelmingly are Sino-Japanese, constructions existed in Japanese prior to the adoption of these Sino-Japanese words into which they could easily fit, facilitating their intake. If the term ‘gerund’ were not used in Japanese grammar for another form, it would be an obvious choice for the OJ deverbal forms which have a great deal in common with the gerunds of for example English or Latin.

\(^{17}\) Note also that se- is used in copula function in expressions like pitori site ‘alone, being alone’.
forms discussed in this paper, prior to their morphologization. First, se- predi-
cicates a form (deverbal nominal) which is segmentally identical with the stem
to which the past tense suffixes attach. Second, although se- has some copular
function, it is morphologically free in that it does not have to be adjacent to
the nominal it predicates, but can be separated by a particle, adverb, or other
material. This is not the case for the regular OJ and later copulas (no, ni, nar-,
to, etc.) which are clitics, or for suffixes and particles discussed in §§2-5
which are either bound morphemes (adjectival copula, past tense suffixes,
stu) or clitics (particles).

In terms of form, demonstrative so and se- ‘do’ are not as close a match
as demonstrative ko and ko- ‘come’. However, it is likely that the synchroni-

cally basic stem of ‘do’, se-, diachronically is derived and goes back to a
pl/pre-OJ root *sa which may be thought to be reflected in OJ in so/sone in

the prohibitive construction na VERB so/sone (see (20) and (41) above for
examples).18

Thus, there is a strong functional fit between the demonstratives ko and
so and the two irregular verbs ko- and se-: ko and ko- are both speaker-fo-
cused deictics, and so and se- are both anaphoric pro-forms, with se- exhibit-
ing further specialized copula-(like) and simple predating uses. On the re-
construction of the root underlying se- as so (< *sa), these forms can be re-
duced to a simple alternation ko ~ so.

7 Concluding

The hypothesis offered in this paper is that the forms discussed in this paper,
summarized in Table 1 by morphology/part of speech,19 are related and dia-
chronically reflect the same material, in the form of two alternating roots *k-
~ *s-.

18 Na was originally a negative adverb; so may be thought to reflect the use as imperative of an
earlier root of ‘do’ (the original pattern of imperatives of vowel base verbs was to use the basic
stem) and some an archaic optative form of ‘do’, suggesting a diachronically underlying root so
(< *sə: pre-OJ */a/ > OJ /o/ through regular sound change). On this suggestion, the basic stem
se- incorporates the same derivational matter as the bigrade verbs and diachronically derives
from pre-OJ *sə-y > OJ se.

19 I have provisionally included the forms from the simple past which involve sik.
<table>
<thead>
<tr>
<th></th>
<th>ˈk-</th>
<th>ˈs-</th>
</tr>
</thead>
<tbody>
<tr>
<td>adjectival</td>
<td>ˈki-kyeba,</td>
<td>ˈsi-seba,</td>
</tr>
<tr>
<td>copula</td>
<td>ˈkyedo,</td>
<td>ˈsa</td>
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<tr>
<td></td>
<td>ˈkyéku,</td>
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<td></td>
<td>ˈkyenaku,</td>
<td></td>
</tr>
<tr>
<td></td>
<td>ˈkyere,</td>
<td></td>
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<tr>
<td></td>
<td>ˈkyereba,</td>
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<tr>
<td></td>
<td>ˈkyeredo,</td>
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<td></td>
<td>ˈkupa</td>
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<td>ˈsi, siku</td>
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<tr>
<td>past tense</td>
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<td></td>
<td>ˈkyeredo,</td>
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<tr>
<td></td>
<td>ˈkyereba,</td>
<td></td>
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<tr>
<td></td>
<td>ˈkyeraku</td>
<td></td>
</tr>
<tr>
<td>negative</td>
<td></td>
<td>ˈzu &lt; *ni-su, ˈzute &lt; *ni-sute, ˈzupa &lt; *ni-sup�</td>
</tr>
<tr>
<td>semblative</td>
<td></td>
<td>ˈnasu &lt; na-su</td>
</tr>
<tr>
<td>copula</td>
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<td></td>
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<tr>
<td>focus</td>
<td>ˈka</td>
<td>ˈso</td>
</tr>
<tr>
<td>particles</td>
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<tr>
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<td>ˈko</td>
<td>ˈso</td>
</tr>
<tr>
<td>grammatical verbs</td>
<td>ˈko-</td>
<td>ˈse- (~ ˈso)</td>
</tr>
</tbody>
</table>

Table 1. ˈk- ~ ˈs- forms by morphology and part of speech.

The forms in Table 1 take part in one of four alternations, three of which include forms of the adjectival copula, as summarized in (44) and shown in Table 2 by phonological shape.
instantiated in most of the forms within the adjectival copula and simple past tense paradigms, as well as between these two paradigms, and between the modal past and the adjectival copula paradigms.

**ku ~ su:** adjectival copula infinitive *ku* (and gerund and conditional) and infinitive/adverbializer *su* in the negative infinitive/conclusive (and gerund and conditional) *zu* < *ni-su* and the semblative copula *nasu* < *na-su*.

**ka ~ sa:** focus particle *ka* and adjectival copula exclamatory *sa*. These two are morphologically different.

**ko ~ so:** demonstrative *ko* and *ko- ‘come’, and *se- (~ so) ‘do’ and focus particle *so*.

<table>
<thead>
<tr>
<th>ki</th>
<th>si</th>
</tr>
</thead>
<tbody>
<tr>
<td>adjectival copula <em>ki</em>; <em>kyeba</em>, <em>kyedo</em>, <em>kyeku</em>, <em>kyenaku</em>, <em>kyemu</em></td>
<td>adjectival copula <em>si</em>; <em>seba</em></td>
</tr>
<tr>
<td>simple past <em>ki</em>; <em>kyeba</em>, <em>kyeku</em>, <em>kyemu</em></td>
<td>simple past <em>si</em>, <em>siku</em>; <em>seba</em>; <em>sika</em>, <em>sikado</em>, <em>sikaba</em></td>
</tr>
<tr>
<td>adjectival copula <em>kyere</em>, <em>kyereba</em>, <em>kyeredo</em></td>
<td>modal past <em>kyeri</em>, <em>kyeru</em>, <em>kyere</em>, <em>kyereba</em>, <em>kyeredo</em>, <em>kyeraku</em></td>
</tr>
<tr>
<td>su</td>
<td></td>
</tr>
<tr>
<td>negative <em>zu</em> &lt; <em>ni-su</em>, <em>zute</em> &lt; <em>ni-sute</em>, <em>zupa</em> &lt; <em>ni-sup</em>a</td>
<td>semblative <em>nasu</em> &lt; <em>na-su</em></td>
</tr>
<tr>
<td>ka</td>
<td>sa</td>
</tr>
<tr>
<td>focus particle <em>ka</em></td>
<td>adjectival copula <em>sa</em></td>
</tr>
<tr>
<td>ko</td>
<td>so</td>
</tr>
<tr>
<td>demonstrative <em>ko</em></td>
<td>demonstrative <em>so</em></td>
</tr>
<tr>
<td>verb <em>ko- ‘come’</em></td>
<td>verb <em>se- (~ so) ‘do’</em></td>
</tr>
<tr>
<td>focus particle <em>so</em></td>
<td>focus particle <em>so</em></td>
</tr>
</tbody>
</table>

Table 2. *K*- ~ *s*- forms by shape.
Phonologically, the alternations include the vowels /i, a, o, u/. I shall not here say much about the vowels, particularly because the present state of our understanding of the role of vowels in pre-OJ word formation outside of some simple parts of verb derivation and inflection is quite limited, except to say that all four OJ vowels represented are direct, simple reflexes of vowels found in all reconstructions of pJ vowels, from the most minimal, four-vowel reconstruction (e.g. Martin 1987): OJ /i/ < pJ */i, e/, /a/ < */a/, /o/ < */ə/, /u/ < */u/; to the most maximal, seven-vowel reconstruction (e.g. Frellesvig and Whitman 2008): OJ /i/ < pJ */i, e/, /a/ < */a/, /o/ < */ə, ɨ/, /u/ < */u, o/.

All four vowels in the alternating forms could therefore be direct, simple reflexes of pJ material.

Morphologically, the forms range between bound morphemes (adjectival copula, simple and modal past tense, su infinitive/adverbializer), particles (focus particles), and full words (demonstratives and verbs). The members of each alternation are in some cases distributed morphologically differently (e.g. ka particle, su bound morpheme), but there is some internal coherence in that the ki ~ si and ku ~ su forms all are bound morphemes and ko ~ so mostly are full words (demonstratives and verbs), except for the particle so.

Functionally, a copula function, or copula origin, is common to most of the forms, as described in the preceding sections: adjectival copula, simple and modal past, focus particles, infinitive/adverbializer su in na-su and in zu < *ni-su, and some uses of se- ‘do’. However, first, the forms that have copula function are restricted and/or specialized: the adjectival copula is used only with adjectives, se- ‘do’ only to predicate certain types of nominals, and the particles ka and so have emphatic, exclamative and/or interrogative force. For simple nominal predication, including predication of nominal adjectives, the regular n- copula (no, ni nar-), which is the source of the Modern Japanese copula forms da, desu, de, ni, no, na etc., or less frequently the t- copula (to), also still in use in modern Japanese, were used. This suggests that the k ~ s- based copula forms were older and generally had been replaced by the n- and t- copula forms, except in restricted, specialized contexts.

Second, not all the k ~ s forms have copula function. This is the case for the two demonstratives and ko- ‘come’, but also for some of the functions of se- ‘do’. A relation between demonstratives and copula is cross-linguistically

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20 For example, in verb inflection -i is associated with infinitive/nonfinite inflection and -u is associated with finite (conclusive) inflection. That is clearly not the case for the forms here.

21 It should be noted that it today is commonly accepted that the adnominal ki in the adjectival copula paradigm reflects an earlier *ke which gave ki through mid-vowel raising (through an intermediate stage ɨye which is attested in Eastern OJ, alongside a few forms with ke). It is thus possible that all instantiations of the ki ~ si alternation actually go back to *ke ~ *se, but that does not affect the substance of the reconstructions proposed here, and in particular not the main point that all the forms discussed reflect a *k- ~ *s- alternation.
well established, but always, as far as I am aware, from demonstrative to copula, not the other way. This suggests that a plausible scenario for the relationship between all of the forms considered here is that the demonstratives reflected in OJ as ko and so were the source of the other forms. Thus, the hypothesis can be restated more precisely as in (45).

(45) The forms summarized in Tables 1 and 2 are related and ultimately diachronically derive from two alternating pre-OJ or pJ demonstrative roots *k- ~ *s- which are reflected in OJ as the demonstratives ko and so.

The main developments involved may be summarized as in (46).

(46) (a) development from the demonstratives of the two verbs ko- ‘come’ and so--se- as verbalizations of the core function of the demonstratives
(b) development from the demonstratives of copulas (the attested uses of se- likely reflecting one stage in this development), including the adjectival copula
(c) development from copula of focus particles
(d) development from copula of the past tense auxiliaries

Finally, as for the origin, or source, of the k ~ s alternation, there are two possibilities: Either (a), it is ultimately a suppletive relation, with a separate source for each of the two members, or (b), the members of the alternation reflect a split of a single source (which could have taken place before or after pJ). Assuming (a), we would like to be able to identify separate candidates for each member. The two demonstratives might be candidates, but they are in a close paradigmatic relationship. Assuming (b), we would ultimately both have to identify a plausible single source and propose some kind of condition for the split. As a single source, a palatal */c/ might present itself, but the OJ material gives us no grounds on which to propose conditions for a split. Diachronically, with separate sound changes, followed by dialect convergence or borrowing would be a possibility, but that remains completely speculative. The fact that there is little evidence of a k ~ s alternation elsewhere

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22 This proposal, that the demonstratives are the source of the other forms, would seem to suggest that ko ~ so reflects the earliest or original alternation, and that other forms involve incorporation of additional material, or morphological use of vowel alternations. However, as mentioned above, it is at present not possible meaningfully to discuss the vowels involved in the alternations.
within the language makes it difficult to consider actual phonological conditions.23

References


23 Without attaching too much importance to this, it should be mentioned that it is possible to identify a few OJ lexical items which seem to exhibit a k ~ s alternation, including the following: toki ‘time’ ~ tōni ‘year’; aka ‘bright, red’ ~ asa ‘morning’ (cf. also akatoki ‘dawn’); okare-‘be (left) behind’ ~ osa- ‘late’; kosi ‘lower back’ ~ se-se- ‘back’; kapa ‘river’ ~ sapa ‘mountain stream; marsh’; kup- ‘eat’ ~ sup- ‘imbibe, inhale’. It should also be noted that the Korean ‘do’ verb, Middle Korean ho- > Modern Korean ha-ta, is easier to compare with OJ se- (~ so < * so) if OJ se- ultimately reflects a single root which split into *k- ~ *s-, as K /h/ generally has better correspondences with J /k/ than with J /s/. This could also contribute to understanding correspondences like LMK heli ‘lower back’ :: OJ kosi ~ so-. Both of these points, Japanese internal lexical k ~ s alternations, and correspondences of Korean /h/ mainly with J /k/, but also with J /s/ could be taken to support a single origin for the k ~ s alternation in the grammatical forms examined in this paper.

