

eScholarship

Japanese/Korean Linguistics

Title

Comparative Nominalization and Beyond in Japano-Koreanic

Permalink

<https://escholarship.org/uc/item/78t394zz>

Journal

Japanese/Korean Linguistics, 32(1)

Author

Francis-Ratte, Alexander Takenobu

Publication Date

2026-07-31

DOI

10.5070/J7.66728

Copyright Information

This work is made available under the terms of a Creative Commons Attribution-NonCommercial-NoDerivatives License, available at

<https://creativecommons.org/licenses/by-nc-nd/4.0/>

Comparative Nominalization and Beyond in Japano-Koreanic

ALEXANDER FRANCIS-RATTE

Furman University

1 Introduction

Unlike the Indo-European languages, where both nouns and verbs display a dizzying array of distinct conjugations and declensions, the Japanese-Ryukyuan and Korean languages by contrast possess comparatively few core inflectional forms. Instead, deverbal and nominalizing morphology plays a central role in the grammars of Japanese-Ryukyuan and Korean, and have been key drivers of diachronic morphological change in these languages as well.

Many of the grammatically complex verb patterns of Middle Korean (MK) seem to derive from nominalizations, often having been re-predicated with copular or quasi-copular expressions. For example, the future declarative form *-(o/u)lila* (e.g. *holila* ‘he will do it’) and the durative declarative form *-(o/u)nila* (e.g. *honila* ‘they were doing’) are quite clearly derived from nominalizations in *-(o/u)l* and *-(o/u)n*, the prospective and present-tense modifying adnominal suffixes respectively, which have been reconverted back into predicates by the copular verb *i-*. Other productive nominalizers like the substantivizer *-(o/u)m* can be found throughout the verbal paradigms of Korean, and there is evidence that the infinitive suffix *-a/e* also created nominalizations in earliest stages of the language.

A similar situation can be seen in Japanese. It seems likely that only two of the six basic conjugations (*katsuyoukei*) of Old Japanese (OJ) are derivationally unrelated to nominalization,

Japanese/Korean Linguistics 32.

Edited by Youngdong Cho, Young-Hoon Kim, and John Whitman.

Copyright © 2026, Alexander Francis-Ratte

namely the imperative and conclusive conjugations. For the other conjugational bases as well as the many grammatical constructions based on them, nominalization has also been a primary driver of grammatical development in that language.¹ The relative simplicity of Japanese and Korean morphology has important implications for comparative research. The observation that much of Japanese and Korean grammar seems to be built from a very small number of inflections and suffixes, mostly via nominalization strategies, makes it more challenging to demonstrate paradigmatic links between the two than in the Indo-European languages, whose complex verbal paradigms are obvious signs of their shared ancestry. In fact, Vovin (2011: 1) claims that there is “no common paradigmatic morphology” shared between Japanese and Korean, which he claims makes it impossible to believe in a genealogical relationship of the two language groups. Thus, any comprehensive and compelling theory of Japano-Koreanic unity must, at a minimum, demonstrate correspondences in basic grammatical elements, and should ideally demonstrate interlocking correspondences in the nominalization strategies that employ those basic elements to build more complex structures.

To that end, this paper proposes etymologies for the adnominal forms of Proto-Japanese (PJ) and Proto-Korean (PK) as well as several important nominalizations built on these, which I will show are likely cognates. Section 2 reviews the most likely reconstructions of adnominal forms, showing the relationship between the PJ adnominal and the PK volitive or agentive adnominal form. Section 3 proposes etymologies for three related structures of Proto-Japanese (PJ): fossilized nominalizations seemingly created by a suffix **-ura* (but in actuality formed by adding **-a* to the adnominal), the realis conjugational base (a.k.a. 已然形 *izenkei*) built by adding **-ai* to the adnominal, and the *ku*-nominal structure (a.k.a. 夕語法 *kugohou*) built by adding *-ku* to the adnominal + **-a* structure. Section 4 shows that two of these PJ nominalizations – the fossilized [ADN+**a*] nominalization and the *ku*-nominal [ADN+**a+ku*] – match part-for-part the construction of complex sequential nominalizations in Proto-Korean (PK), namely [ADN+**a*] and [ADN+**a+*k*]. Section 5 proposes Proto-Japano-Koreanic (PJK) reconstructions for these patterns and their constituent elements. In so doing, this paper refutes the strong claim by Vovin that Japanese and Korean share “no common paradigmatic morphology,” and concludes with providing a framework for understanding how morphological mismatches between the two languages might shed light on grammatical changes in their proto-languages.

2 Adnominal Forms of Proto-Japanese and Proto-Korean

This section discusses and reconstructs the most likely forms of the PJ and PK adnominal forms.

¹ Both the adnominal conjugation and the infinitive conjugation regularly form nominalizations in every period of Japanese, and Yanagida and Whitman (2009) argue plausibly that the irrealis conjugation derives from an early nominalization in **-a*. Whitman (2004) proposes that the realis conjugation derives directly from the adnominal, and while I disagree with his specifics (discussed in Section 3), a relationship of the realis to the adnominal is certainly correct.

2.1 Reconstructing the Proto-Japanese Adnominal

The adnominal forms of verbs in Old Japanese differ slightly depending on the class, but an overall pattern can be seen in which non-quadrigrades take a form *-ru* or *-uru* containing /r/, and quadrigrades take a form in *-u* with no additional consonant:

Verb Class	Infinitive Form	Adnominal Form
Quadrigrade	<i>kaki</i> ‘writes’	<i>kaku</i>
Upper Bigrade	<i>okwi</i> ‘arises’	<i>okuru</i>
Lower Bigrade	<i>pe</i> ‘passes’	<i>puru</i>
Monograde	<i>mi</i> ‘sees’	<i>miru</i>
Irregular	<i>si</i> ‘does’	<i>suru</i>

Table 1: Adnominal forms of Old Japanese

If the shapes of adnominal forms were radically different across the different conjugational classes, it would make sense to reconstruct multiple etymologically unrelated adnominal forms in Proto-Japanese. However, the phonological similarities of adnominal forms across classes indicates that the distribution we are seeing is probably that of a single Proto-Japanese suffix, its outcomes having been shaped by morphophonemic changes in each verb class. Moreover, there are signs of a consonant /r/ appearing at the ends of quadrigrade verbs in ways that parallel the appearance of /r/ in the monograde and bigrade adnominal forms, coming notably from the suppositional auxiliary *-ramu* (as noted by Unger 1993) whose forms are shown below:

Verb Class	Infinitive Form	Adnominal Form	Suppositional Form
Quadrigrade	<i>kaki</i> ‘writes’	<i>kaku</i>	<i>kakuramu</i>
Upper Bigrade	<i>okwi</i> ‘arises’	<i>okuru</i>	<i>okuramu</i>
Lower Bigrade	<i>pe</i> ‘passes’	<i>puru</i>	<i>puramu</i>
Monograde	<i>mi</i> ‘sees’	<i>miru</i>	<i>miruramu</i> / <i>miramu</i> ²
Irregular	<i>si</i> ‘does’	<i>suru</i>	<i>suramu</i>

Table 2: Adnominal and Suppositional forms of Old Japanese

Although it is traditionally said that *-ramu* is built on the conclusive form of the verb, it is clear that this auxiliary has no connection to finitude in either its syntax or its semantics, which makes this unlikely as an account of its origins. Instead, it is more enlightening to see *-ramu* not as built on the conclusive but rather on the adnominal. For quadrigrade verbs, the suppositional form seems to be built by adding *-ramu* to the adnominal; on the other hand, for non-quadrigrade verbs, the suppositional form with *-ramu* always looks like the adnominal form plus **-amu* (replacing the final vowel).

When viewing the paradigm of *-ramu* in the context of adnominal forms, it hardly seems like a coincidence that the consonant /r/ appears in exactly those verbs that do not have the consonant /r/ in their adnominal forms (quadrigrades), but is absent for those verbs that already

² The form *miramu* is attested in Old Japanese but not in later periods; I take this to be the earlier form.

have /r/ in their adnominal forms (non-quadrigrades). Furthermore, suppositional *–ramu* must be etymologically related to the future/suppositional auxiliary *–mu*, which attaches to the irrealis stem (*-a) and expresses a very similar meaning. This suggests that the /r/ of *–ramu* is etymologically separable from the rest of the auxiliary, probably some suffix or form of the verb to which the remainder of the auxiliary has been attached. An elegant analysis of its forms is that suppositional *–ramu* was originally built by adding *-amu to the adnominal forms of all verbs, and that the presence of /r/ in quadrigrade forms of *–ramu* is a retention of the original adnominal suffix. Unlike the traditional analysis that *–ramu* is a suffix on the conclusive stem, the idea that /r/ in *–ramu* belongs to the earlier adnominal form harmonizes with the obvious fact that *–ramu* must be built from the shorter suppositional *-(a)mu.

Following a tradition of analysis first proposed by Whitman (2004), I reconstruct a single adnominal suffix *-or in Proto-Japanese. This reconstruction reflects the strong evidence from Eastern Old Japanese that the vowel of the adnominal was /o/ as opposed to /u/ and that this vowel was the earlier one (Pellard 2008). At this stage of Proto-Japanese, word-final sonorants like /r/ were still phonotactically permissible, but as the phonotactics of Japanese shifted towards a stricter CV syllable structure, the adnominal suffix also shifted, its outcome depending on the verbal paradigm in which it was embedded. In quadrigrade (i.e. consonant-final) verbs, the final segment *r of the adnominal was lost, leading to an adnominal in *-o and finally OJ *–u* after mid-vowel raising (e.g. *tatakap-u* ‘he who fights’). The quadrigrade class contains many verbs with roots longer than two CV syllables, which may have made loss of *r more likely. I suggest that loss of *r originally took place in longer quadrigrade stems (e.g. *tatakap-or ‘he who fights’), and then spread to all quadrigrade verbs by analogy. In bigrade verbs and the irregular verbs ‘do’ and ‘come,’ the adnominal *-or gained a final echo vowel to eventually become OJ *–uru* (e.g. *ok-uru* ‘he who arises’); this final vowel likely represents a phonotactic repair strategy that was used in shorter roots. In monograde verbs, the adnominal form gained a final echo vowel like in the bigrade class, but it lost its initial vowel, giving OJ *–ru* (e.g. *mi-ru* ‘he who sees’). Monograde roots are uniformly monosyllabic and vowel-final, with one root (OJ *i-* ‘shoots’) consisting of only a single vowel. As such, the loss of the first /u/ in the adnominal form was probably motivated by a desire to preserve as much as possible of the root to which it was attached.

2.2 Reconstructing the Proto-Korean Adnominal

The adnominal forms of Middle Korean are much more straightforward to reconstruct. Middle Korean has two basic noun-modifying forms of verbs, the prospective modifier *–(o)l* / *–(u)l*, and the present-tense modifier *–(o)n* / *–(u)n*. This analysis focuses on the prospective modifier *–(o)l* / *–(u)l*, both because of its possible relationship to Japanese as well as indications that the prospective is diachronically more closely associated with verbs than the suffix *–(o)n* / *–(u)n*, which is also the basic adnominal form for adjectives. A “minimal” vowel is inserted in the adnominal form when the verb root ends in a consonant, *o* for roots containing light-harmony vowels and *u* for dark-harmony vowels. These minimal vowels have no morphological value, and a minimalistic interpretation would suggest that the underlying morpheme of the adnominal suffix is simply *–l*.

Middle Korean shows a distinction between plain or “narrative” adnominal clauses marked with *–(o)l* or *–(u)l*, and volitional adnominal clauses marked with *–wól* or *–wúl*. The latter adnominal forms incorporate what Martin (1992) calls the “modulator” and Lee and Ramsey

(2011: 205) call the “volitive” morpheme *-wó / -wú*; this morpheme was used overwhelmingly with adnominal endings *-(o/u)n* and *-(o/u)l* and nominalizer *-(o/u)m*, and with final endings derived from those adnominals such as the future declarative *-(o/u)lila*. The precise meaning and function of the volitive morpheme are somewhat fuzzy, but it is found in clauses expressing “subjective will or intent, not for factual, objective narrative” (Lee and Ramsey 2011: 206). That is to say, adnominal clauses marked with *-wól* or *-wúl* were those in which the adnominalized predicate expressed volitional agency, whereas adnominal clauses marked with plain *-(o)l* or *-(u)l* expressed events or actions without volitional agency.

In Proto-Korean, I reconstruct the basic or narrative adnominal form as **-r*. Given that sonorants like */r/* are never permitted to directly follow obstruents at any stage of Korean, it is highly probable that Proto-Korean also mandated consonant epenthesis of **ə* or **i* when the adnominal form was attached to a verb. I also reconstruct an agentive adnominal form **-o-r* in Proto-Korean, incorporating the volitive morpheme **-o-*.

2.3 Reconstructing a Proto-Japano-Koreanic Adnominal

I propose that the Proto-Japanese adnominal suffix **-or* is directly cognate not with the Proto-Korean plain adnominal **-r*, but rather with the Proto-Korean agentive adnominal **-o-r*, from which I reconstruct an agentively-marked adnominal **-o-r* in Proto-Japano-Koreanic. This entails that Proto-Japano-Koreanic language distinguished between a narrative adnominal **-r* and an agentively-marked adnominal **-o-r*, a distinction that the Korean lineage preserved (at least until the modern period).

In the Japanese lineage, the narrative adnominal was lost, and the agentively-marked form **-o-r* became generalized to all adnominal clauses, fusing into a single form **-or* before it eventually shifted to *-u / -ru / -uru*. The original function of **-o-* to mark agency in the predicate may be reflected in the use of active syntactic alignment in OJ adnominal clauses identified by Yanagida and Whitman (2009), contrasting with the nominative-accusative alignment seen in the main predicate of a sentence. I suggest that active alignment in adnominal clauses may be a preservation of the original function of **-o-r* in marking agentive clauses.³

3 Complex Nominalizations in Proto-Japanese [ADN+**a*]

Section 3 analyzes three important grammatical constructions in Old Japanese as having been built etymologically from the adnominal.

³ Yanagida and Whitman (2009) propose that the triggering of active syntactic alignment was a characteristic of early Japanese nominalizations generally, and they give examples that suggest active alignment not only for adnominalized clauses but also in the irrealis conjugation (*mizenkei*), which they argue may come from a Proto-Japanese nominalization in **-a*. In light of the comparison of PJ adnominal **-or* to the Korean agent-marking adnominal **-o-r* and its further derivation from volitive **-o-* presented here, I believe that the diachronic origin of active alignment in Old Japanese clauses is likely found in the adnominal, not in the irrealis conjugation. This does not mean, however, that Yanagida and Whitman’s analysis is incorrect – it may be that PJ adnominal **-or* was the original trigger for active syntactic alignment in its clause, but that speakers reanalyzed active alignment as a feature of all nominalizing structures, not just those formed with **-or*.

3.1 Proto-Japanese Nominalization [ADN+*a]

The first is a small but significant set of resultative nominalizations that seem to be built by adding some suffix **-ura* to a verb root, which in light of the reconstruction in Section 2 can be analyzed as originally [ADN+*a]. The two best examples of this are OJ *makura* ‘pillow’ and OJ *sakura* ‘cherry tree, cherry blossom,’ any scrutiny of which reveals obvious relationships to the Old Japanese verbs *mak-* ‘wraps it’ and *sak-* ‘it blooms’ respectively. Another compelling case is OJ *masura* ‘great, excellent’ (often with *wo* ‘man’), which looks to be derived from OJ *mas-* ‘it increases, excels’. The meaning of the derived noun seems to reflect the result or end state of the verb taking place; that is, *makura* ‘pillow’ results from *mak-* ‘wraps,’ and *masura* ‘great, excellent’ is the end state of *mas-* ‘increases, excels’. Other evidence can be found in adjectives like *medura-si* ‘dear, beloved, rare’ (adjectival *-si*) and *meduraka* ‘rare’ (with property suffix *-ka*), both of which are clearly derived from the root of *mede-* ‘loves’ seemingly by the addition of some nominalizing suffix **-ura* (which in this case is equivalent to adding **-a* to the adnominal form).

It is not immediately clear what suffix has formed these nouns; it cannot be the animate plural suffix *-ra*, nor can it be explained as some kind of property attributive suffix. Previous scholarship has not given satisfactory etymologies for these apparent derivations either. Martin (1987: 471, 473) notes the likely relationships of *makura* and *masura* to the verbs *mak-* and *mas-* but provides no analysis, pointing out in the case of *masura* that “The *-u-* is a problem”. Martin (1987: 517) analyzes *sakura* as **saku-ara* ‘bloom thing,’ but the obvious problem is that his putative **ara* meaning ‘thing’ does not actually exist.⁴ In light of the reconstruction of the Proto-Japanese adnominal as **-or* and the evidence that all Japanese verbs once had **r* in their adnominal forms, we can understand the etymology of OJ *makura* as reflecting an earlier adnominal form **mak-or* with the addition of a suffix **-a*. Like the suppositional auxiliary *-ramu*, these nouns are a trace of /r/ that was once found in all adnominal forms. The suffix **-a* in these nouns must be related to the fossilized nominalizer **-a* that Sakakura (1966) identifies and which can be found in many more Old Japanese nouns, e.g. *oya* ‘parent’ from *oyi-* ‘gets old’ or *nuka* ‘bran’ from *nuk-* ‘removes’. Like the [ADN+*a] pattern, the nominalizer **-a* seems also to have created resultative nouns, a further sign that nouns like *makura* are probably built from this same suffix as nouns like *oya* and *nuka*. The greatest virtue of analyzing the **-ura* suffix as [ADN+*a] is that it connects these fossilized nouns to a broader set of nominalizations in Proto-Japanese, namely the realis or *izenkei* conjugation of Old Japanese, which I reconstruct as [ADN+*a+*i], and the verbal nominal or *ku-gohou* structure, which I reconstruct as [ADN+*a+*ku], discussed in Sections 3.2 and 3.3.

3.1.1 PJ **-a* as Nominalizer and Quasi-Infinitive

In addition to its clear function as a Proto-Japanese nominalizing suffix, **-a* may also have served an infinitive-like function in very early Japanese. The *mizenkei* or irrealis conjugation clearly incorporates a vowel **a* that is affixed to the verb root; while some scholars have rightfully questioned whether all examples of irrealis are built from an inflection **-a* (e.g. Frellesvig 2010), it seems clear that at least some instances must be, such as the conditional ‘if’ construction with *ba*. Furthermore, fossilized causative constructions with **-s-* (a truncated form of **se-* ‘does’) seem to imply the presence of an inflection **-a* that preceded the causative auxiliary, such as *kapas-*

⁴ One more example might be OJ *pitura* ‘layered cloth colored on both sides’ from OJ *pit-* ‘gets drenched,’ though this may instead be a compound with *ura* ‘reverse side’.

‘makes change it’ built from the root *kap-* ‘buys it’. This points to PJ *-a as both a nominalizing suffix and a quasi-infinitive, thus constituting a strong match with PK infinitive *-a (MK -á/ě).

This analysis suggests a reevaluation of the etymology of the iterative or durative expression of Proto-Japanese. This pattern, seen in verbs like *tatakap-* ‘fights’ (from *tatak-* ‘strikes it’), seems to have expressed repeated action or experience, and are thought by some to be built from some verbal extension *-ap-. At first glance, reconstructing the iterative / durative suffix as *-ap- seems to provide a neat explanation for the presence of the vowel [a]. However, there are also experiential verbs built simply by adding a verbalizing *p- to a nominal stem, such as *omop-* ‘thinks, feels’ from OJ *omo* ‘main side, primary, heavy’; compare English *weigh* developing into a verb ‘think about, consider’). These examples do not sit comfortably with the *-ap- analysis, and instead point to experiential *p-. On further reflection, there is no reason to think that [a] must belong to the suffix – in the case of fossilized causatives in *-(a)s-, it is clear that the stem vowel [a] cannot come from the causative suffix itself, because these causatives are clearly formed by a truncation of *se- ‘does’. In the same way, we should conclude that the stem vowels in iterative / durative expressions may also be infinitives of some kind, not part of the iterative / durative suffix.

I propose that iterative or durative expressions were originally formed by an infinitive-like inflection *-a combining with a verbal extender *po-. This suffix also formed experiential verbs from nouns, such as OJ *omop-* ‘feels, thinks’ from OJ *omo*. Evidence for the suffix as *po- comes from the fossilized passive form *omopoye-* ‘be thought of’ of *omop-* ‘thinks’. This passive verb shows an unexpected *o* preceding the passive marker -ye-, the only explanation for which is that the root once ended in the vowel *o* /ə/. I suggest that the origin of the iterative suffix was a verb *po- meaning ‘sees, experiences’ and that it is the root underlying OJ *por-* ‘wishes, desire it’ (with continuative *-r-) and possibly of OJ *pe-* ‘elapses, passes’ (with de-transitivizing *-e-). While this reconstruction is speculative, it garners some circumstantial support. It is easy to see how a verb meaning ‘sees’ or ‘experiences’ could have been grammaticalized into a marker of experiential action – for example, a sensible derivation of OJ *tatakap-* ‘fights’ would be from **tatak-a-po-* ‘experiences striking’. Furthermore, it is cross-linguistically common for verbs expressing desire to be derived from ‘see’; some examples are Japanese *nozom-* ‘wishes; gazes, comes face-to-face’ and related *nozok-* ‘peeks at,’ Chinese 望 *wang* ‘hopes for, expects; sees,’ MK *polá-* ‘desires’ seemingly from MK *pwó-* ‘sees’. The form and distribution of this Proto-Japanese *-a-po- construction provide a striking parallel to the Korean experiential construction VERB-á/ě-pwó-, which is also formed from the infinitive inflection (PK *-a) and the verb *pwó-* ‘sees’. The use of PJ *p(o)- on nouns as an experiential verb formant may also be a direct parallel to the Middle Korean adjective formant -p-.

3.2 Proto-Japanese [ADN+*a+*i]

A second important structure built on the Proto-Japanese adnominal *-or is the realis or *izenkei* form, which I propose is etymologically [ADN+*a+*i]. In any account of the Old Japanese verbal paradigm, synchronic or diachronic, the realis or *izenkei* conjugational base must bear a derivational relationship with the adnominal or *rentaikei* form. This is because, for every verb class in Japanese including irregular verbs, the realis can always be formed from the adnominal by changing the final vowel to *e*:

Verb Class	Infinitive Form	Adnominal Form	Realis Form
Quadrigrade	<i>kaki</i> ‘writes’	<i>kaku</i>	<i>akey</i>
Upper Bigrade	<i>okwi</i> ‘arises’	<i>okuru</i>	<i>okure</i>
Lower Bigrade	<i>pe</i> ‘passes’	<i>puru</i>	<i>pure</i>
Monograde	<i>mi</i> ‘sees’	<i>miru</i>	<i>mire</i>
Irregular	<i>si</i> ‘does’	<i>suru</i>	<i>sure</i>

Table 3: Adnominal and Realis forms of Old Japanese

This strongly suggests that the realis conjugation incorporates the adnominal or is built from it. In an influential analysis, Whitman (2004) proposes that the realis is etymologically identical to the adnominal, which he reconstructs as *-or. He proposes that the vowel *o underwent fronting to *e before /r/, a sound change he relates to word-final yodization of sonorants in Proto-Japanese. Although he is certainly correct that the realis is derived from the adnominal, this particular derivation has several problems, the biggest of which may be that the theory predicts the wrong vowel for the realis form – in quadrigrade verbs ending in consonants for which A-type / B-type syllabic distinctions exist, the vowel in the realis conjugation is a diphthongal *ey* that comes from PJ *ai, not from PJ *e (e.g. *kak-* ‘writes’ above).⁵ Thus, in order to both derive the proper vowel of the realis while still recognizing its derivational relationship with the PJ adnominal *-or, we are led inescapably to the conclusion that the realis conjugation is built from the adnominal *-or plus *ai, that is to say [ADN+*ai]. Owing to their synchronic derivational relationship, the shape of the realis form always changed paradigmatically to match that of the adnominal. This accounts for why the realis conjugation lost the consonant *r in quadrigrade verbs, despite this segment never falling in final position for the realis as it did for the adnominal.

By reconstructing the realis conjugation as from PJ [ADN+*ai], we can now see that its base is actually the nominalization pattern [ADN+*a] identified in Section 3.1, plus some morpheme *i. I identify this *i as a pronoun of antecedent reference, traces of which are found in the Japanese expression *aru i wa* meaning ‘some; either; perchance’. This expression, first attested in Early Middle Japanese texts as *aru i fa*, must be composed of the verb *ar-* ‘exists, has’ modifying a noun *i*. This is further supported by the presence of the focus particle, which would be impossible if *i* was not a noun. Martin (1987: 420) analyzes this *i* as a pronoun expressing ‘fact (that); that (which),’ which I accept. The function of *i in referencing an antecedently established situation is the reason for its grammaticalization in the *izenkei*, a conjugation that presupposes a prior circumstance on which the predicate is a comment.⁶

⁵ The OJ syllabic nucleus *ey* can occasionally be reconstructed as coming from PJ *ai / *aj, e.g. OJ *se* / *so-* ‘back’ from PJ *saj. However, it is believed that the typical outcome of PJ *ai is the OJ syllabic nucleus *wi*.

⁶ While it is tempting to see this *i as perhaps the hypothetical demonstrative pronoun reconstructed by Frellesvig and Whitman (2008), there are serious problems with positing a proximal demonstrative *i in Proto-Japanese that render this hypothesis too problematic to consider here. There is also some evidence of a pronoun *i in early Ryukyuan, though its exact function is unclear. I propose that this Proto-Japanese pronoun *i also explains the etymology OJ *ima* ‘now,’ with *i referencing an antecedent situation and *ma expressing ‘interval’ (OJ *ma* id).

3.3 Proto-Japanese [ADN+*a+*ku]

There is an additional structure in Old Japanese that, like the realis form, seems obviously tied to the adnominal in its derivation, namely the 夕語法 *ku-gohou* (lit. ‘the *ku* grammar pattern’), which I will refer to as the *ku*-nominal.

Verb Class	Infinitive Form	Adnominal Form	<i>ku</i> -nominal Form
Quadrigrade	<i>kaki</i> ‘writes’	<i>kaku</i>	<i>kakaku</i>
Upper Bigrade	<i>okwi</i> ‘arises’	<i>okuru</i>	<i>okuraku</i>
Lower Bigrade	<i>pe</i> ‘passes’	<i>puru</i>	<i>puraku</i>
Monograde	<i>mi</i> ‘sees’	<i>miru</i>	<i>miraku</i>
Irregular	<i>si</i> ‘does’	<i>suru</i>	<i>suraku</i>

Table 4: Adnominal and *ku*-nominal forms of Old Japanese

Its “basic function was abstract nominalization (‘the fact that ...’),” and it was also used as a clausal complementizer and an exclamatory (Frellesvig 2010: 58). The *ku*-nominal structure is generally presented descriptively in the Japanese linguistic-philological tradition without an etymological analysis that ties it to other, more basic conjugations. However, it is very clear that the *ku*-nominal must bear the same kind of etymological relationship with the adnominal conjugation as the realis conjugation does, which is unsurprising given that a core function of the adnominal is to create noun forms of verbs. Some scholars have suggested that it may be formed from a suffix **aku* that has been affixed to the adnominal form (e.g. Frellesvig 2010) though an obvious problem for this analysis is the absence of any nominalizer of that shape.⁷

Instead, I propose that the etymology of the *ku*-nominal is [ADN+*a+*ku], built from the same Proto-Japanese [ADN+*a] nominalization of resultative meaning that also underpins the realis conjugation. The **ku* that builds the *ku*-nominal on [ADN+*a] must be a nominal suffix that expressed ‘way, fact’; this immediately suggests a connection to the adjectival suffix *–ku* of infinitive and adverbial function, and there are unmistakeable signs in Old Japanese that *–ku* was some kind of manner suffix for nouns more generally. OJ *kaku* ‘thus, this way’ seems to be built from proximal demonstrative *ko* with a manner suffix *–ku*, and the OJ adverb *mosi* ‘if, perchance’ has an alternate form *mosikupa* ‘or else; perhaps,’ clearly incorporating the suffix *–ku* plus the focus particle *–pa* (Omodata et al. 1967: 738). I suggest that the function of **ku* in Proto-Japanese was comitative or “absolute,” where [**X-ku*] expressed ‘with X, with X being so,’ and that its various uses as an adjectival infinitive, adverbial marker, and fact-nominalization are all developments from this original meaning:

- (1) **paja-ku* ‘with speed’ → *paya-ku* ‘quickly, with it being quick’
- (2) **kə-ku* ‘with this, with this being so’ → *kaku* ‘thus, in this way’
- (3) **se-or-a-ku* ‘with having done being so’ → *suraku* ‘the way, fact of doing’

⁷ Kupchik (2023) has recently proposed that *ku*-nominal may in fact be built from a suffix **ku*, suggesting a movement in the field away from the **aku* analysis. I suspect that the **aku* analysis has been popular because [ADN+*a] had not yet been identified as a productive nominalizing structure.

3.4 Conclusion

This analysis has identified a Proto-Japanese construction [ADN+*a], which likely created a resultative nominalization. The suffix *a is probably related to quasi-infinitive and nominalizing suffix *-a seen in many fossilized deverbals and in the irrealis conjugation. Building on this pattern, the OJ realis conjugation can be understood as etymologically [ADN+*a+*i], with the addition of a pronoun *i of antecedent reference that served as a quasi-predicator. Finally, the etymology of OJ *ku*-nominal construction can be understood as [ADN+*a+*ku], the resultative nominalization [ADN+*a] followed by a suffix *ku that I have identified as etymologically related to the adjectival suffix *-ku* and which likely expressed manner or possibly ‘with’ in Pre-Proto-Japanese. Section 4 will discuss how two of these constructions, [ADN+*a] and [ADN+*a+*ku], are relatable to Proto-Korean nominalizations [ADN+*a] and [ADN+*a+*k], constituting close and interlocking correspondences in paradigmatic morphology.

4 Complex Nominalizations in Proto-Korean

In Middle Korean, we see a pattern VERB-(o/u)lā that expressed sequential action, which we can translate as ‘(verb) then (verb),’ e.g. MK *pol kwuphi-lā* ‘bending the arm, then’ (월인석보 *Wōrin sōkpo* 21:4a). There is also a related pattern VERB-(o/u)lāk, which like its shorter counterpart also expressed sequential actions, e.g. MK *wo-lāk ka-lāk* ‘coming then going’ (두시 언해 초간본 *Tusi ōnhae ch’oganbon* 7:6; Lee and Ramsey 2011: 222). The first pattern has a few attestations in Middle Korean but none in the modern language; the second pattern survives in Modern Korean expressions like 오르락 내리락 *wolulak naylilak* ‘going up and down, rising and descending,’ an expression that is interestingly not found in the Late Middle Korean corpus. The fact that 오르락 내리락 is used in the modern language despite that exact expression not being attested in Middle Korean shows us that the VERB-(o/u)lā and VERB-(o/u)lāk patterns must have been somewhat productive in premodern Korean, even though they are only sparsely attested. I agree with Lee and Ramsey (2011: 217) that the VERB-(o/u)lā and VERB-(o/u)lāk patterns are etymologically related, and that the latter contains some suffix *-k that connected clauses and served to emphasize the sequence of events.

Given that the infinitive -á can denote a sequence of two actions, I propose that the VERB-(o/u)lā pattern is etymologically [ADN+*a] and that VERB-(o/u)lāk is [ADN+*a+*k], where *a is the Proto-Korean form of the infinitive. The identify of the suffix *k is not immediately apparent, but the best explanation is that it was a nominal suffix related to the “emphatic” nominal suffix *k⁸ and to the Proto-Korean adverbial suffix *k. There is significant evidence that Proto-Korean originally had an adverbial suffix *k that, while no longer productive in Middle Korean, can be found in many fossilized adverbs, including MK *acik* ‘yet,’ *phwuk* ‘fully, deeply,’ *wocik* ‘solely,’ *pilwok* ‘although,’ *mak* ‘right away, timely’ and others. This points to a Proto-Korean nominal suffix *k expressing manner. Moreover, there is a cross-linguistic correlation between manner-adverbial markers and clause-connecting functions, as seen in the Japanese adjectival suffix *-ku* which expresses both adverbial manner and non-finitive clause connection (‘and’). I suggest that

⁸ The emphatic *k is also found in an alternative form *-ak / -ek* of the infinitive in Middle Korean, which shows that the infinitive could be followed by *k.

the Proto-Korean nominal suffix *k expressed ‘with X being so’. As such, it primarily expressed manner with adverbs, but could also emphasize a sequence of two events.

- (4) *pwukV-k ‘with depth, with it being deep’ → *phwuk* ‘deeply, fully’
 (5) *wo-r-a-k ‘with having come being so’ → *wolak* ‘coming, then (sequ.)’

I propose that Proto-Korean *k ‘with X being so’ is directly cognate with Proto-Japanese *ku, which I reconstructed in Section 3.4 as originally expressing ‘with, with X being so’. Thus, we have reconstructed Proto-Korean [ADN+*a] as a sequential nominalization, and Proto-Korean [AND+*a+*k] as an emphatic sequential nominalization, constructions which are likely built from the infinitive *-a and the manner-adverbial suffix *k.

5 Comparative Analysis of Nominalizations

We can now see that both Proto-Japanese and Proto-Korean possess nearly identical paradigmatic structures, built from the same morphemes. Each of the morphological parts in these constructions is also a direct Japano-Koreanic cognate, namely the adnominal forms (PJ *-or, PK *-r), the infinitive (PJ *-a, PK *-a), and the manner-adverbial suffix (PJ *ku, PK *k).

Proto-Japanese [ADN+*a] ‘(resultative) nominalization’	Proto-Japanese [ADN+*a+*ku] ‘the fact of (subj.) having (verb)-ed’
Proto-Korean [ADN+*a] ‘sequential nominalization’	Proto-Korean [ADN+*a+*k] ‘sequential nominalization (emphatic?)’
Proto-Japano-Koreanic [ADN+*a] ‘(subj.) having (verb)-ed’	Proto-Japano-Koreanic [ADN+*a+*ku] ‘with (subj.) having (verb)-ed’

Table 5: Proto-Japanese, Proto-Korean, Proto-Japano-Koreanic reconstructions

I propose that the PJ [ADN+*a] resultative nominalization structure is cognate with the PK [ADN+*a] sequential action structure, going back to a PJK resultative nominalization [ADN+*a] that expressed ‘what has (verb)-ed’. I also propose that PJ [ADN+*a+*ku] nominal structure is directly cognate with PK [ADN+*a+*k] sequential action, going back to a PJK [ADN+*a+*ku]. Given the reconstruction of PJ *ku as a marker for ‘with, with X being so’ and PK *k as an adverbial or manner marker, I suggest that PJK [ADN+*a+*ku] expressed ‘with (subj.) having (verb)-ed’. The reconstruction of a nominal suffix *ku meaning something like ‘with, with X being so’ suggests a possible connection to MK *-kwa/Gwa*, the comitative suffix of Middle Korean. True (post-consonantal) diphthongs with /w/ always arise from the merging of a labial and non-labial vowel, so the earlier shape of this suffix must have been *ko-a or *ku-a. Reconstructing a very ancient suffix *ku that expressed ‘with’ in Proto-Japano-Koreanic suggests a possible etymology for comitative *-kwa*, possibly this *ku followed by the putative Old Korean locative suffix *-a. It may also be related to the MK gerund *-kwo* (discussed in Section 6).

6 Conclusion

Contradicting Vovin's strong claim that there is "no common paradigmatic morphology" linking Japanese to Korean, this paper has shown that some of the most complex grammatical structures of Proto-Japanese and Proto-Korean, namely [ADN+*a] and [ADN+*a+*ku], have direct paradigmatic correspondences. It is significant that these correspondences in paradigmatic morphology are found at the level of their proto-languages, as it rules out the possibility of the contact-induced convergence or borrowing that critics often appeal to in order to explain Japano-Koreanic similarities. It may also be considered a kind of singular fact that the suffix *a, which normally attaches only to verb roots in Proto-Japanese (as a fossilized nominalizer and quasi-infinitive) and Proto-Korean (as the infinitive), can be found directly on the adnominal suffix in this one case alone. This seeming violation of the morphosyntax of *a may have been some quirk of the grammar of Proto-Japano-Koreanic, inherited only for this particular construction. More broadly, this paper has shown connections between the various nominalization and adnominalization structures of the two language groups, which are some of the only sources of etymological and morphological complexity in the two languages.

Finally, I will conclude with a note for further exploration. This paper has proposed a strong cognate between PJ *ku and PK manner-adverbial *k. Scholars like Whitman (2012) have (alternatively?) suggested that PJ *ku might also be related to the Middle Korean gerund *-kwo*; while it is tempting to simply dismiss this idea on the grounds that PK *k is the stronger comparison, it makes one wonder, could MK *-kwo* be built from the shorter PK *k? It also raises an important question that this paper has so far sidestepped – can there be valid morphological matches between Japanese and Korean if those morphemes differ in their morphosyntactic categories? Possibly the greatest difference between Japanese and Korean morphosyntax, often overlooked in the diachronic literature, is that adjectives in Korean are essentially identical to verbs, only distinguished morphosyntactically in the use of the processive ending *-no* (Lee and Ramsey 2011: 197), whereas adjectives in Japanese constitute their own morphological category, able to predicate sentences with a set of forms that are not found in verbal paradigms (e.g. adnominal *-ki* and infinitive *-ku*). However, the earlier we look in Japanese, the more obvious it becomes that the adjective paradigm is a recent innovation in the language. Some adjective roots like *topo* 'distant' modify nouns both with the adnominal suffix *-ki* but also with the genitive postposition *-no*, and fossilized adjective-noun compounds such as OJ *payabusa* 'falcon' (with OJ *paya-si* 'is fast') or OJ *opobune* 'big ship' (with *opo-si* 'is great') show the same *rendaku* as true noun-noun compounds, a phenomenon that arose from the elision of a genitive particle. For these reasons, adjective roots in Proto-Japanese must have been a kind of property noun, not constituting a unique morphosyntactic category of their own.

If so many adverbs of Middle Korean incorporate a *k that was originally a nominal suffix, and so many Korean adjectives seem to be built from a formant *p- that could attach to nouns, then were adjective roots always verb-like, or were some originally nominal like in Japanese? Just as this paper has posited that a Proto-Japanese nominal suffix became an adjectival suffix in Old Japanese, I suggest that at least some verbal suffixes of Middle Korean might come from nominal suffixes of Proto-Korean. If we posit that Proto-Japano-Koreanic originally distinguished only

between nouns and verbs, this raises the possibility that verb-like adjectives in Korean might originally have been nouns that later merged into the verbal category. In this process, some originally nominal (uninflecting) suffixes in Korean became verbal suffixes by “piggybacking” into the verbal category together with the root to which they were attached. This hypothesis provides a possible derivational paths for OJ adjective and nominal suffixes to correspond to Korean verbal material. An example might be the OJ property suffix *-ka* (e.g. *oroka* ‘foolishness’), an uninflecting suffix which looks to be related to the MK adjectivizing suffixes *-k* (e.g. *pulk-* ‘is red,’ from *pul* ‘fire’) and *-kaW* (e.g. *mas-kaW-* ‘is appropriate’ from MK *mac-* ‘is correct’) which inflect like verb stems. Another is the OJ nominalizer *-sa* expressing ‘-ness’, a suffix used only with adjectives, which seems to correspond to the fossilized MK substantivizing suffix *-s* seen mostly with verbs (e.g. *kaps* ‘price,’ *mwoks* ‘portion,’ *saks* ‘shoot, bloom’), again with a morphosyntactic difference. This helps to explain why scholars like Whitman (1985, 2012) have sometimes attempted to link verbal inflections in Korean to adjectival suffixes in Japanese without properly explaining how that mismatch came to be. Many questions remain, but we ought to explore frameworks for understanding how and why there might be morphosyntactic mismatches between Japanese and Korean morphemes, moving us away from brute-force comparisons that ignore these important details.

References

- Francis-Ratte, A. 2016. Proto-Korean-Japanese: A New Reconstruction of the Common Origin of the Japanese and Korean Languages. Ph.D. Dissertation, The Ohio State University.
- Frellesvig, B. 2010. *A History of the Japanese Language*. Cambridge University Press.
- Frellesvig, B. & J. B. Whitman. 2008. Evidence for Seven Vowels in Proto-Japanese. In Bjarke Frellesvig and John Whitman (eds.), *Proto-Japanese: Issues and Prospects*, 15-41. Amsterdam: John Benjamins Publishing Company.
- Kupchik, J. 2023. *Azuma Old Japanese*. Berlin/Boston: De Gruyter Mouton.
- Lee, K. M. & S. R. Ramsey. 2011. *A History of the Korean Language*. Cambridge: Cambridge University Press.
- Martin, S. 1987. *The Japanese Language Through Time*. New Haven: Yale University Press.
- Ohno, S. 1953. Nihongo no Doshi no Katsuyokei no Kigen ni tsuite [On the Origin of the Japanese Verb Conjugations]. *Kokugo to kokubunsaku* 350, 47-56.
- Omodaka, H. et al. 1967. *Jidaibetsu Kokugo Daijiten, Jōdai hen* [Chronological Dictionary of Japanese, Old Japanese section]. Tōkyō: Sanseidō.
- Pellard, Thomas. 2008. Proto-Japonic *e and *o in Eastern Old Japanese. *Cahiers de linguistique – Asie orientale* 37(2), 133–158.
- Sakakura, A. 1966. *Gokōsei no Kenkyū* (Research on Word Formation). Tokyo: Kadokawa shoten.
- Unger, J. M. 1993 [1977]. *Studies in Early Japanese Morphophonemics, 2nd edition*. Bloomington: IULC.
- Unger, J. M. 2014. Old Japanese Bigrade Paradigms and Korean Passives and Causatives. In Martine Robbeets and Walter Bisang (eds.), *Paradigm Change in the Transeurasian languages and beyond*, 177-196. Amsterdam: John Benjamins.
- Vovin, A. 2010. *Koreo-Japonica: A Re-evaluation of a Common Genetic Origin*. Honolulu: University of Hawai’i Press.

- Vovin, A. 2011. Why Japonic is not Demonstrably Related to 'Altaic' or Korean. Historical Linguistics in the Asia-Pacific region and the position of Japanese, ICHL XX, Osaka.
- Whitman, J. B. 2004. The Form and Function of the Rentaikei and Izenkei Suffixes in Proto-Japanese. Paper presented at the Second Oxford-Kobe Linguistics Seminar, on the History and Structure of Japanese, 27 Sept. 2004.
- Whitman, J. B. 2012. The Relationship of Japanese and Korean. In David N. Tranter (ed.), *The Languages of Japan and Korean*. London: Routledge, 24–38.
- Yanagida, Y. & J. B. Whitman. 2009. Alignment and Word Order in Old Japanese. *Journal of East Asian Linguistics* 18, 101–144.