NOMINALIZATION OF VERBALS AND ATTRIBUTIVE MARKERS IN KOREAN AND JAPANESE*

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1. INTRODUCTION. Korean and Japanese are known to share a number of features in major areas of grammar, such as word order, honorifics, classifiers, deixis, and serial verb formation. Do they also share a major system such as nominalization? Evidence from diachronic as well as synchronic data seems to indicate that indeed it is the case.

To show this, I concentrate on investigating a nominalization that converts verbals, i.e. verbs and adjectives to nouns. This is achieved by morphological suffixation. Both languages have an inventory of morphemes {*i, ki, m*} in common for this purpose.[1] Two classes of suffixation are identified: (i) suffixation applied to the infinitive form, and (ii) suffixation applied to the attributive form. But what makes the attributive marker particularly conducive to nominalization while there are almost half dozen inflectional forms in both languages? A possible answer to this question might be: In Korean and Japanese, as verb-final languages, the attributive marker that immediately precedes the head noun is NP-potential because of the special juxtaposing syntactic position the attributive marker occupies. That is, such a head noun is frequently deleted if it is predictable from discourse contexts. This is particularly so when a head noun is supplied from a special class of nouns known as 'pro-nominals' (which are generally referred to as *hyungsik-myengsa* in Korean and *keisiki-meisi* in Japanese) equivalent to English 'the one,' 'the thing,' 'the event,' etc. The head noun deletion triggers what I call Attributive Usurpation in which the attributive marker takes over the function of the absent head noun.

This study offers a unified account of nominalization in Korean and Japanese and provides functional explanations to root nominalization and the origin of *no*-nominalization in Japanese.

The present paper has six parts: Section 2, immediately following this introduction, discusses the mechanism converting a verb to a nominal in Korean and Japanese. Section 3 presents nominalization of adjectives in the two languages. Section 4 discusses nominalization of verbals with the zero marker. Section 5 is devoted mainly to the nominalizing of a verbal inflected in the attributive form, which is observed in the early periods of both languages. Section 6 presents a unified account of the nominalization of the verbals in Japanese and Korean. Section 7 presents concluding remarks.

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[1] The term 'adjective' is generally referred to as 'adjectival verbs' by Korean and Japanese grammarians, because an adjective not only conjugates as a verb but also, unlike English, it serves as the predicate of a sentence without help of a copula.

2. NOMINALIZING VERBALS. In this section, I examine the morphological processes which convert a verb or an adjective into a noun. Korean data and Japanese data are discussed separately, beginning with Korean data.

2.1. INVENTORY OF NOMINALIZING MORPHEMES. In Korean, a verb may be nominalized by a set of suffixing morphemes, as shown in (1). (2) through (4) illustrate the application of those nominalizing suffixes.[2]

(1) { -i, -ki, -m }

(2) a. ca-m (sleep), chu-m (dance), sey-m (jealousy), nol-um (gambling), ci-m (load)
b. sey-ney-m (being jealous), tol-li-m (circulation), al-li-m (notice), moi-m (meeting)

(3) nol-ki (play), cha-ki (kicking), ssu-ki (writing), ilk-ki (reading), ssi-ppuli-ki (seeding)
sal-ki (living), mo-ney-ki/mo-sim-ki (rice transplanting)

(4) nol-i (game) ---------- from nol-ta (to play)
mitac-i (sliding door) --------- from mi-ta (to push) and tac-ta (to close)
mek-i (food, feed) ---------- from mek-i-ta (to feed)
os-kel-i (cloth hanger) -------- from os-ul kel-ta (to hang clothes)

The following Old Korean examples of *i*-nominalization are from Yang (1965: 268).[3]

(5) a. nyelum-ciz-i (fruit-making ----> farming) cf. cíz- (to make)
b. son-cap-i (hand-holding ---> handle) cf. cap- (to hold)
c. cwuk-sal-i (dying-living ----> life & death) cf. sal- (to live)

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[2] The semantic differences among these three types of nominalization, i.e. *i*-nominalization, *ki*-nominalization, and *m*-nominalization are interesting in their own right. Following Lyons' (1977) concept of the ontological base of semantic categories, Lee (1993:341) characterizes each of these three types of nominalization in Korean: *i*-nominalization as covering first-order entities, *ki*-nominalization for second-order entities, and *m*-nominalization for third-order entities. Independently, Horie (1998:178) also applies Lyons' ontological orders in describing the span of the syntactic functions of the Japanese particle *no*. We will not dwell on the semantic aspects of the nominalization types here.

[3] Yang even suspected that *i*-ending nouns such as the following may also have originated from some obscure source in the past, which he did not elaborate.

Ex. i. twuthep-i 'a toad' (= twukkepi in Modern Korean)
ii. pʌl-i 'fly'
iii. nwu-ey 'silkworm'
iv. pel-ey 'insects, worms'

Adjectives can also be nominalized by making use of these three morphemes in (1).

(6)

i-nominalization	*ki*-nominalization	*m*-nominalization
kiph-i (depth)	kiph-ki	kiphwu-m
kil-i (length)	kil-ki	ki-m/kil-um
nelp-i (width)	nelp-ki	nelp-um
mwuk-ey (weight)	mwukep-ki	mwuke-um
tukk-ey (thickness)	tukkep-ki	tukkewu-m
noph-i (height)	nophwu-ki	nophwu-m
ppalk-ang-i (red thing)	ppalkah--ki	ppalka-m

As we will see, *ki-/m*-nominalizations, though productive, are mostly applied for sentence nominalization bearing meanings of comparison or contrasting and the like, as in (7).

(7) I chayk-un [pro twuthep-ki]-nun ha-na, [pro mwukep-ci]-nun anh-ta.
this book-TOP thick- KI-CONTR-though heavy-KI-TOP not-be
'This book is thick, but not heavy.'

The morpheme *-ci* is a variant of *-ki* and occurs almost always in negative contexts.[4]

2.2. JAPANESE *i*-NOMINALIZATION. Although the nominalization of verbals in Japanese is predominantly achieved by *i*-suffixing, there is some evidence which suggests that *m*- and *ki*-nominalization may also have once been a part of Japanese grammar.

2.2.1. PREVALENCE OF THE *i*-NOMINALIZATION IN JAPANESE. The three-way morphological nominalizing strategy seen in Korean is apparently lacking in Japanese. Instead, the typical gerundivization is achieved by *i*-suffixing to the stem. Some of the examples in (8) below might be familiar even to non-Japanese speakers.[5]

(8)

Stem-u	V-mi	V-ki	V-i
atar-u (to hit) ---------->	*atar-mi	*atar-ki	atar-i (hitting a target/jackpot)
kir-u (to cut, dissect ------>	*hara-kir-mi	*hara-kir-ki	hara-kir-i (disembowelment)
matur-u (to celebrate) ---->	*o-matsur-mi	*o-matsur-ki	o-matsur-i (festivals)
sator-u (be enlightened) -->	*sator-mi	*sator-mi	sator-i (enlightenment)

[4] Yang (1965:164-6 308-9) regarded Old Korean *ti* (>*ci*) as the base form of *ki*. Some scholars consider *ci/ki* as separate entities with no derivational relation between them.

[5] In (8) I applied the suffixes *mi* and *ki* directly to the stems, as shown in the second and the third columns. These starred items wouldn't be improved in terms of acceptability even if the epenthetic *i* is inserted in order to comply with the Japanese syllable structures.

sibor-u (to squeeze) ------>	*o-sibor-mi	*o-sibor-ki	o-sibor-i (a small hot towel)
yak-u (to sauté) ---------->	*suki-yak-mi	*suki-yak-ki	suki-yak-i (Jpn. sautéed dish)

2.2.2. THE LEXICAL ITEM *kakom-u* AND *m*-NOMINALIZATION. However, some data indicate that Japanese might have had another measures as well. I will first discuss *m/mi*-nominalization and then *ki*-nominalization.

In search of the existence of morphological nominalization, the verb *kakomu* is of great interest. The verb *kakomu* (to encircle) is one of the so-called quadrigrade verbs of Old Japanese, and inflects like *yomu* (to read), *kamu* (to bite), *yamu* (to cease). However, the former is different from the latter in one important aspect. That is, there is a verb *kakou* (encircle) which seems to form a doublet with k*akomu* having the same meaning 'enclose,' 'fence (round),' 'rail off,' 'rope off,' etc.[6] On the other hand, one never finds words like **yo-u, *ka-u, *ya-u,* as the counterparts of *yomu, kamu,* and *yamu* in Japanese lexicon.[7] It is intriguing that *kakomu* may be derived from *kako-* via *m-/mi-*sufffixation.

(9) Derivation of *kakomu*

a.	kako-	<Base form>
b.	kako-mi	<*mi*-nominalizer>
c.	kako-m-u	<transitivization> via substitution of *i* with *ru*-ending

This analysis is supported by the existence of a verb *kakku-ta* (grow, cultivate, take care of (plants)) in Korean. That items, J. *kako-u* and K. *kakku-ta,* correspond to one another is beyond dispute, not just in phonology, but also in semantics. In raising animals, people usually fence them around, or by extension a feudalistic official keeps his mistress in seclusion from public scrutiny. Likewise, from *kakku-ta* we get *kakkum* (raising, taking care of) by *m*-suffixation in Korean.

(10)	a.	kakku-	<Base form>
	b.	kakku-m	<*m*-nominalization>

There is an interesting set of *mu*-ending verbs, which appear to be similar to *kakku-ta* in (10).

(11) matom-u (make x united)
sonem-u (to be jealous)
sum-u (to be over)
tum-u (load, stack up)
tutum-u (to wrap)

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[6] *Kako-u* has a usage that slightly deviates from the standard one, namely, 'keep a mistress.'

[7] One finds *yo-u* (to be drunk) and *ka-u* (to buy) in dictionaries, but they are entirely separate words, as glosses indicate.

They are similar to the Japanese verbs *yomu, kamu, yamu* in (11), and the segment *m* is an inseparable part of their stems, which is irrelevant to *mi*-nominalization.

(12)

Base	M-Nominal
*mato-u	matom-u (make x united)
*sone-u	sonem-u (to be jealous) [8]
*su-u	sum-u (to be over)
*tu-u	tum-u (load, stack up)
*tutu-u	tutum-u (to wrap)

Nonetheless, there is good reason to believe that the stems of these words in (11) are all of Korean origin. Derivational relations between the items in (11) and their Korean counterparts are shown in (13) below.

(13) Correspondences in *m*-Nominalization

a. K: motu-m (bunch) < moto-ta (gather, put together) cf. mongttung-keli-ta (unite)
   J: matom > matom-er-u (collect, put x in a lump)[9]

b. K: ci-m (load, burden) < ci-ta (carry x on the back) cf. cige (coolie rack)
   J: tum > tum-u (load, stack up)

c. K: seynay-m (being envious) < sey-nay-ta (feel jealousy)
   J: sonem > sonem-u (feel envy)

d. K; soy-m (passing time) < soy-ta (celebrate a festival, stay up all night)
   J: sum > sum-u (end, pay off)

e. K: ssa-m (wrapping) < ssa-ta (wrap)
   J: tutum > tutum-u (wrap)

As we see in (13), there are *m*-nominalized items in Korean such as *ci-m* (stack, load), *seyney-m* (jealousy), *soy-m* (having holidays), and *ssa-m* (rice wrapping), all of which are in exact correspondence with the verb stems in (11). This suggests that the stem of each of the examples in (11) might have already been nominalized before they were brought into Old Japanese lexicon.

In any event, the example of *kako-u* does not allow us to dismiss entirely the possibility that the *m*-nominalization was once operative in Japanese. Furthermore, as we will see in a later section, the *mi*-nominalization of Japanese adjectives seems to corroborate the observations

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[8] *Sone-u* may be relatable to *suneru* (become sulky or grouchy).

[9] x indicates a non-specific nominal term such as 'someone' and 'something.'

above. One can conjecture at this point that the abundance of verbs like *yom-u* and *kam-u* in Japanese suppressed the development of nominalization via *m*-suffixing so as to reduce confusion between the *i*-nominalization from the source of *m*-ending stems and that of *m*-nominalization from the base ending in non-bilabial nasal consonants. [10]

2.2.3. EVIDENCE FOR *ki*-NOMINALIZATION IN JAPANESE. Japanese might also have had, like Korean, a procedure that converts a verb into a gerund by making use of the morpheme *ki* in its history. I assume the following correspondence:

(14) Korean *ki* :: Japanese *kko*

This possibility is based on the fact that the two morphemes show obvious semantic correspondences. To show this, I provided phrases in parentheses (15) - (18) for comparison, which are the Korean counterpart of the underscored Japanese phrases.

(15) Oma'e-ni-wa sonna koto deki-*k*-ko aru-mon-ka. cf. *ha-l-swu iss-ki*
you-TOP such thing enable-KO NEG 'being able to do it'
'I bet you wouldn't be able to do it.'

(16) Sonna-ni hayaku kaeri-k-ko nai-yo. cf. *tola-ka-ki*
so much early return- NEG 'going back'
'You can't go home so early.'

(17) Naki-k-ko nas-i! cf. *wul-ki*
'No crying, O.K.?' 'crying'

(18) Sawari-k-ko nai-yo. cf. *tah-ki*)
'No touching, O.K.?' 'touching'

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[10] In this connection, one cannot exclude the possibility that *kakomu* in (9) may also be derived directly from the nominal base kakom, as are the verbs in (13). That is, the item *kakou* may well be a derivative of *kakomu* as resulting from weakening of bilabial nasal, as shown below.

kakom-u > kako-Ø-u > kakow-u (via weakening of the bilabial nasal)

However, I do not further address on this subject in this paper.

The italicized *k* between the verb stem and the segment *-ko* in examples (15) - (18) represents a glottal long consonant.[11] The expressions containing the pattern V-*k*-*ko* (or the *gokko* pattern) frequently appear in children's speech or in their parents' conspiratorial baby-talk.[12]

(19) a. nenne-ko — cf. cam-ca-ki (Korean equivalent)
baby's sleeping — **cam-ca-i* **cam-ca-m*

b. kake-k-ko — cf. talli-ki (the Korean equivalent)
running — **talli-i* **talli-m*

c. suberi-k-ko — cf. mikkulum-tha-ki (the Korean equivalent)
sliding — **tha-i* **tha-m*

What is striking in the above examples is that all the Japanese words in (19) may be translated into Korean as nominals with the *ki*-ending, whereas those with the *i*-ending and *m*-ending are all unacceptable, although some of the *m*-nominals may be well-formed in sentential nominalization.[13] Note also that the *gokko* pattern in Japanese is still productive, though it is limited to a small range of applicability, namely in the context of playing games in children's speech.

This circumstantial evidence suggests that the nominalizing morpheme *kko* in children's language corresponds to the particular nominalizing morpheme *ki* in Korean. We can establish a paradigmatic set of gerundivization as in (20) above in the two languages on the basis of observations made in this section.

(20)

	Korean	Japanese
i- nominalization	i	i
ki-nominalization	ki	kko
m-nominalization	m	mi

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[11] At present, I have no explanation for the insertion of the segment *k* before *ko* which *I* assume to be a cognate of Korean *ki*-nominalizer.

[12] The *k-ko* pattern might be conveniently referred to the *gokko* pattern. The morpheme *gokko* may even be applied to a noun to express game-like activities, e.g. *heitai-gokko* (soldier game), *sensoo-gokko* (war game), *funa-nori gokko* (sailor game'.

[13] For instance, in sentences like (i) and (ii) *cam* and *tallim* signal sentential nominalization.

(i) *cikum-un cam cam-i mwues-pota-to philyo-ha-n ttay-ta.*
'It is most important at this time for us to get some sleep.'

(ii) *Son Kiceng-un mayil-kathi ku angkeli-khosu-lul tallim-ulosse, machimnay Olympic-eyse wusung-hay-ss-ta.*
'Champion Son Kiceng was able to win at the Olympics because of his daily running along this long-distance course.'

3. NOMINALIZING ADJECTIVES. Now, let us move on to adjectives, and determine if the nominalization mechanisms we discussed in the previous section apply to adjectives in the same way as verbs in the two languages.

3.1. THREE KINDS OF ADJECTIVAL NOMINALS. In Korean, the three suffixes {*i, ki, m*} discussed above are all in use for making nominals out of adjectives. Some adjectives are lacking the *i*-form, as those of (21c) through (21f) below.

(21)

	Stem	Gloss	*i*-form	*ki*-form	*m*-form
a.	kil	(long)	kil-i	kil-ki	kii-m
b.	noph	(high)	noph-i	noph-ki	noph-um
c.	cha	(cold)	-	cha-ki	cha-m
d.	selep	(sad)	-	sulp-ki	seleuw-um
e.	culkep	(happy)	-	culkep-ki	culkew-um
f.	koylop	(painful)	-	koylop-ki	koylow-um

3.2. ADJECTIVAL NOMINALIZATION.

3.2.1. *mi*-NOMINALS FROM ADJECTIVES. Japanese utilizes *ki* and *mi* for nominalizing adjectives, just as Korean does, while the morpheme *i* in Japanese takes no part in nominalizing adjectives.

The existence of the *mi/me* nominalization in Japanese grammar, which is equivalent to the Korean *m*-nominalization, is readily observable, as in (22) below.

(22)

hazukasi (shameful)	------->	hazukasi-me (shame)
kanasi (sad)	------->	kanasi-mi (sadness)
natukasi (longed-for)	------->	natukasi-mi (longing)
kurusi (tormenting)	------->	kurusi-mi (agony)
yosi (good)	------->	yosi-mi (friendliness, good will)

These nominals are morphologically extended by the morpheme *-u* to form verbs.

(23)

Base		*mi*-nominal		*mu*-ending verb
kanasi (sad)	--->	kanasi-mi (sadness)	--->	kanasim-u (sadden)
natukasi (longed for)	--->	natukasi-mi (nostalgia)	--->	natsukasimu (be nostalgic)
kurusi (tormenting)	--->	kurusi-mi (agony)	--->	kurusim-u (suffer)

There is another set of *mu*-ending verbs which are derived from the *m*-nominals; however, unlike the *mu*-ending verbs in (23) above, their derivational path is somewhat difficult to determine.

(24)

A-column (*mu*-ending verbs)	B-column (stem)	C-column (*m*-stem)	D-column (*m*-nominalization)
takam-u (to heighten)	taka-	taka-m	*takam-i
hirom-u (to widen)	hiro-	hiro-m	*hirom-i
hikum-u (to lower)	hiku-	hiku-m	*hikum-i
sebam-u (to narrow)	seba-	seba-m	*sabam-i
atatam-u (to warm)	atata-	atata-m	*atatam-i
nagom-u (to calm down)	nago-	nago-m	*nagom-i
akaram-u (turn red)	akara-	akara-m	*akaram-i
siram-u (grow light)	sira-	sira-m	*siram-i[14]

Adjectival verbs in (24) are different from those in (22) in that items in the former group do not have *mi*-nominals, but m-stems, as we see in the C-column and D-column of (24). This suggests that, unlike those in (22), adjectival verbs in (24A) are not derived from the *m*-nominals. Instead, they are derived from [stem (B-column) + *mu*] or [stem (B-column) + *u*]. I assume that the derivational base is the *m*-ending stem as in A-column and C-column. The *m*-ending stem must have relevance to the *m*-nominalization in ways for which I cannot yet account.

3.2.2. SUFFIX *ki* AS THE ATTRIBUTIVE MARKER IN JAPANESE. In Old Japanese, an adjective in the attributive form with the *ki* morpheme was be able to serve directly as a nominal, as shown in (25).

(25)

Base Form		*ki*-Nominals
sirosi (white)	--------->	siro-ki (being white)
hukasi (deep)	--------->	huka-ki (being deep)
toosi (distant)	--------->	too-ki (being distant)
sayakesi (clear)	--------->	sayakeki (being clean)
uresi (happy)	--------->	uresi-ki (being happy)

The process of he functional conversion of the morpheme *ki* from the attributive marker to the nominalizer in the grammar of Japanese nominalization---is stunning in that it corresponds well with the morpheme *ki* in Korean which also nominalizes adjectives.

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[14] There are dictionary entries such as akami and siromi, but they are of a different origin: *aka-mi* (redness, reddish things), *siro-mi* (whiteness). Suffixation of morphemes such as *-sa* and *-mi* to adjective stems turns them into abstract nominals, but I will not discuss them here, although the *mi*-suffixation might have some relevance to discussions in this paper.

The pattern [Attributive > Nominalizer] may be attributed to the deletion of the ead noun that the adjective modifies, as illustrated in (26) below.

(26) a. [[..[A]$_A$]-ki]$_{AP}$ N]$_{NP}$ <Underlying Form> --- *ki* is an attributive marker
b. [[..[A]$_A$]-ki]$_{AP}$ Ø]$_{NP}$ <Deletion of Head >
c. [[..[A]$_A$]-ki]$_{NP}$ <Functional Transfer> -- *ki* is a nominalizer

(27) Yo-no naka-ni uresi-ki mono-ha... (Makura:276 quoted in Sinmura 1981:219)
world-in happy-KI thing-TOP
'A pleasing thing in the world is.....'

The noun phrase *uresiki-mono* (pleasing thing, pleasure, or happiness) in sentence (27) may be reduced to *uresiki* with its meaning kept intact although the head noun is deleted.
In (26), the adjectival phrase suffixed by *ki* relays it to the head noun *mono* (things). *Mono* is known as *keisiki meisi* (abstract formal nouns), a group of which includes *koto* (things) and *tokoro* (place), etc. in traditional Japanese grammar.[15] The abstract formal noun as such tends to be omitted when it occurs with adjectival phrases suffixed by the attributive *ki* morpheme. The omission of head nouns may eventually prompt the attributive marker *ki* to take over the function of the disposed head noun. This is illustrated in (28) below.

(28) Attributive Usurpation

a. [[[[uresi]$_A$ -ki]$_{AP}$ -[mono]$_{NP}$ -ga]$_{NP}$ -ha <Underlying Representation>
happy ATTR thing NOM TOP

b. [[[[uresi]$_A$ -ki]$_{AP}$ -[mono]$_{NP}$ -Ø]$_{NP}$ -ha <Case Marking Deletion>

c. [[[[uresi]$_A$ -ki]$_{AP}$ -[Ø]$_{NP}$ -Ø]$_{NP}$ -ha <Head NP *mono*-Deletion>

d. [[[[uresi]$_A$ -ki]$_{NP}$ -ha <*ki*-Reanalysis>

In (28), the surface form of the nominal [*uresiki*] is derived from the underlying [*uresiki mono*] as an NP through syntactic paths with head noun deletion and *ki*-reanalysis. The deletion of the case-marker in (28) is triggered automatically by the attachment of the topic/contrastive marker. More examples from earlier Japanese literature are given below.

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[15] *Mon* is one of the so-called pro-nominals (Lyons 1977:658), which include *kes* (things), *il* (event), *tey* (places), etc. In Korean, the pro-nominal *mon* is undoubtedly a cognate of Japanese *mono*. However, unlike the latter, *mon* is extinct, leaving only faint traces of its existence in Middle Korean. Nam's (1960:217) dictionary has an entry for *mon* with paraphrase of *mwulken* (things, stuff). Nam gives Tong-un-hay as its reference source. No entry for such a word is found in Martin et al. (1967). The only occurrence of the lexical item *mon* I encountered in contemporary writing is in Choy (1971:227), where he contrasted *salam tayilum-ssi* (person pronouns) to *mon tayilum-ssi* (thing pronouns). He used the latter as the general term for pronouns for things (or non-person pronouns) such as *i kes, ku kes, mwues, emu kes, yeki, etey, kuli, celi,* etc.

(29) from Yamada (1954:116)

a. tanusi-ki-o (the pleasure-ACC)
b. kasi-ki-o (the sadness-ACC)
c. na-ki-ha (not being-TOP)

(30) from Sansom (1946:102-3)

a. Ikusa-ni-mo nebuta-ki-wa daiji-no mono-zo.
'In war also sleepiness is a dangerous thing.'

b. On-keshiki-no imiji-ki-wo mitatematsureba...
'As they beheld the splendor of his looks...'

c. Fune-no uchi, too-ki-wa iru chika-ki-wa uchimono-nite syoobu su.
'Among the ships, the far ones shot with their bows, the near ones fought with striking weapons.'

4. NOMINALIZATION BY THE ZERO MARKER. Another mechanism for nominalization is that a verb in the bare form, i.e. the stem of a verb, is often interpreted as a noun in Old Korean. The following are Yang's (1965:268-9) examples.

(31) a. sayp∧lk (new-bright --> dawn)
b. hanp∧l (great-field ---> heaven, sky)
c. ha-n (dry----------> dryness, famine)
d. n∧l (raw ----------> raw thing)
e. wuzwum'wuz (to laugh -----> laughter, smile)

Since the stem-nominalization is regarded as having a zero marker, we might expand our inventory of nominalizing morphemes as follows:

(32) { i, ki, m, ø }

Consider some Old Korean nominals derived from verbs in the bare form.

(33) [Sol-nip-h∧l hana cekena n∧l]-∧l sta tihe....(Kwuhwang Cey'yo 4. Yang 1965:268)
pine leaf-ACC one little raw-ACC pick-and
'Pick a green (fresh) leaf of a pine, and grind it....'

(34) Kili [ta∧l]-s eps-i tuliultinila.
forever eternity-without hang-down
'I will drop it down forever and ever.'

In (33), the adjective *nʌl* (raw) is followed directly by the accusative marker *-ʌl*, which indicates that the adjective serves as a noun. The verb *taʌl* ('to exhaust') in (34) above is interpreted as a noun.[16]

5. ATTRIBUTIVE NOMINALIZATION. Sentential nominalization in Old Korean is also achieved by what I call Attributive Nominalization.

5.1. THE *n*-NOMINALIZATION AND *l*-NOMINALIZATION IN OLD KOREAN. In Old Korean, verbs suffixed by the *n*-attributive marker or the *l*-attributive marker behave as nominals, whereas this is not allowed in Modern Korean, as we see in (35) below.[17]

(35) a. $[[[sa]_{VP}]_{IP}$ -n $]_{CP}$ $[chayk]_N]_{NP}$ ----> *$[sa\text{-}n]_N$
buy ATTR(realis) $[[sa\text{-}n]_{IP}$ kes$]_N$
'the book that (I) bought' 'the book that (I) bought'

b. $[[[sa]_{VP}]_{IP}$ -l $]_{CP}$ $[chayk]_N]_{NP}$ -----> *$[sa\text{-}l]_N$
buy ATTR(irrealis) $[[sa\text{-}n]_{IP}$ kes$]_N$
'the book that (I) will buy' 'the book that (I) will buy'

In (35), the phrase *sa-n* cannot be interpreted as a noun and the head noun must be present as in *sa-n chayk*. Likewise, *sa-l* must be followed by *chayk* to make the NP complete, i.e. *sa-l kes*, where *kes* is a pro-nominal coreferential with *chayk*. In Old Korean, however, this type of nominalization was fairly common, as we see in (36). Yang (1965:267-70) gives the following as an example of Attributive Nominalization.

(36) a. ca- l kos/tey
sleep ATTR(Irrealis) place
'a place to sleep'

(37)

a. $[$ ca- $]_{IP}$ l $]_{CP}$ kos $]_{NP}$
b. $[$ ca- $]_{IP}$ l $]_{CP}$ Ø $]_{NP}$ <Head NP Deletion>
c. $[$ ca- $]_{IP}$ l $]_{NP}$ <Nominalization by Reanalysis>
d. $[$ ca- $]_{IP}$ l $]_{NP}$ - i $]_{NP}$ <*i*-nominalization>

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[16] The segment *s* is not a nominalizer, but a place holder for a case-marker, which is frequently observed in Old Korean, according to Yang (1965:268).

[17] The attributive marker takes three forms ---*n*, *mun*, and *l*. The *n*-attributive form is for the past tense, the *mun* form for the present tense, and the *l*-attributive form for the future tense.

The intransitive verb *ca-* (sleep) inflected in the irrealis attributive, as shown in (37a), turns into a nominal upon the deletion of the head noun, as in (37c). The *ca-l* is further reinforced by the *i-* nominalization. Yang analyzed *cali* (place or bed) as the consequence of two successive nominalizations: the attributive nominalization and the *i*-nominalization.

The following sentences are quoted from Yang (1965:267-70) to exemplify the distinction between the *n*-marker and the *l*-marker.

(38) Min-i [tʌzʌ-l] al-ko-ta. (Anmin-ka 3.4.2. Yang 1965:266)
pleople-NOM love know-imperative
'People should know what loving is.'

In (38), the deverbal noun *tʌzʌ-l* (love or loving) is in the irrealis attributive form. The verb *tʌzʌ-l* is placed in the object position of the verb *al-* (to know), and this indicates that it is assigned an object case. (The accusative marker *ʌl* is omitted because of the redundancy (cf. *tʌzʌ-l -ʌl)*. I analyze sentence (38) as having an underlying structure which looks something like (39), extracting only the square-bracketed portion from (38).

(39) a. $[[[t\wedge z\wedge]_{VP}$ -l $]_{CP}$ N $]_{NP}$ -ʌl <Underlying Representation>
love -ATTR Head Noun-ACC

b. $[[[t\wedge z\wedge]_{IP}$ -l $]_{CP}$ Ø $]_{NP}$ -ʌl <Head Noun Deletion>
c. $[\,[t\wedge z\wedge]_{IP}$ -l $]_{CP}$ -Ø $]_{NP}$ -Ø <Case Marker Deletion>
d. $[t\wedge z\text{-}l\,]_{NP}$ <Reanalysis: Functional Transfer>

In (39), a head N immediately adjacent to the attributive marker is assumed, which is case-marked by the accusative ʌl. The head noun in the fixed 'attributive-head' construction (à la Comrie (1981) may be represented in the null form, as in (39b). The redundent ʌl-ʌl form is simplified by dropping the accusative to yield (39c). Reanalysis turns the phrase tʌz-l into a nominal.

Nominalizing a verb by suffixing the attributive marker *-n* to the stem is shown in (40) below. I inserted the null symbol in the position of the absent head of the relative clause.[18]

(40) [Twu yulsa kak kak po mʌingkʌlo-$]_{IP}$ n $]_{CP}$ [Ø]]-i is-kenul
two masters each note make ATTR -NOM exist-because
'As there are notes which are written by two masters,.....' (Wuelin Sekpo)
(Example from Yang 1965:73)

Compare the modern version of (41) below.

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[18] The attributive marker *-n* in (39) is morphologically a portmanteau of two markers, namely the attributive marker and the non-past tense marker.

(41) [Twu yulsa-ka kak kak po matu-]$_{IP}$ n]$_{CP}$ [kes]] -i iss-u-nikka..
two masters each note make ATTR -NOM exist-because

In Modern Korean the head noun must be present explicitly in a construction like (41).

(42) a. [.... V-n]$_{CP}$ [Ø]] -i
b. [.... V-n]$_{CP}$ [kes]] -i

As we will see later, the pattern (41a) highly resembles the Japanese *no*-nominalization. Incidentally, sentence (43) above is an instance of a so-called internally headed relative clause. In Modern Korean the null head NP in (39) may be replaced by pro-nominals such as *kes* (thing) or *mon* (thing, events), which can be co-indexed with the internally situated head noun such as *po* (notes) in this particular example. The absence of the head noun in (39) prompts the past-tense attributive marker *-n* to take over the nominalizing function.

As Kuroda (1992) shows, this type of nominalization, i.e. the internally-headed relative clause construction, is also found in Old Japanese, as in (43) below. Consider the Classical Japanese example below from Kuroda (1992:139). The example are paired with a Modern Japanese equivalent (43b) for comparison.

(43) a. [Mitinoku-no kami-no me-ni nari-te, [kudari-ni-ke]-ru]-ga, hito-tose, nobori-te ...
(Genji Vol.5: p.99) (the underscore and brackets by AHK)
'[she (=Tyuuzyau-no kami)] [, who] had become the wife of the governor of Mitinoku and had left the Capita, came up to the Capital one year...'

b. [..... tuma-ni nat-te, [orite itta]-no]-ga, ichinen-go, zyoukyousite-kite...

In the contemporary version (43b), *ru* is replaced by *no*. The correspondance between the attributive *ru* and the so-called nominalizer *no* is revealing: specifically, there is a functional equivalence between the attributive and the nominalizer. [19] The square-bracketed part followed by the nominative marker *ga* in (43) is the subject of the verb *nobori-* (came up).

5.2. IN SEARCH OF THE ORIGIN OF THE JAPANESE *no*-NOMINALIZER. Example (43) is particularly interesting in that the construction shows a great resemblance to the Japanese *no*-nominalization. (44b) is the translation of (44a), which I extracted from (43).

[19] I analyze (42b) as a result of historical reanalysis which is involved with the zero head. We can see a derivational path identical with (38) below.

a. [V-ru] Ø] -ga > [V] -ru] -ga
b. [V-no] Ø] -ga > [V] -no] -ga

(44) a. [[.....m∧ingk∧lo-] *n*]$_{NP}$ - i is-kenul....
b. [[.....tsukut-ta] *no*]$_{NP}$ - ga aru- kara....
made - NOM exist-as
'since there is a note that (they) produced ...'

As we see, the contrasting pair above has an impressive set of paradigmatic correspondences:

(45) a. Both the the *n*-headed clause and the *no*-headed clause take nominative case-markers, which indicates that the two NPs are unmistakably NPs.

b. The Korean attributive marker *n* and the so-called Japanese nominalizer *no* are aligned in the syntactic position corresponding to each other.

The question arises at this point as to what is the syntactic category that *-n* occupies in (44a), and that the particle *no* occupies in (44b). One might suggest that historically the NPs in (44a) and (37b) might have had underlying forms like those in (46a) and (46b) below.

(46) a. [[[[...po$_i$....[m∧ingk∧l-o]$_{VP}$]$_{IP}$ *n*]$_{CP}$ N$_i$]$_{NP}$ - i
b. [[[[....fu$_i$....[tsukut-ta]$_{VP}$]$_{IP}$ *no*]$_{CP}$ N$_i$]$_{NP}$ - ga

where (i) N$_i$ is the head of the NP which embeds CP (Complementizer Clause)
(ii) The head of CP, i.e. C = *n, no*.
(iii) IP is an infinitival phrase equivalent to S.

In this analysis, the particles *n* and *no* are interpreted as a sort of complementizer inserted to the head of CP. That is, the attributive markers function as the head of CP. The head noun N$_i$ is co-referential to the clause-internal noun *po* (notes) in Korean or the Japanese counterpart *fu*. In this particular internally headed relative clause construction, N$_i$ is assumed to be a 'pro-nominal' such as *kes* in Korean and *koto* in Japanese. If we assume that the N$_i$ of each sentence is deleted for some reason, the attributive markers *-n* and *no* will inherit the function of the deleted N$_i$. In consequence, the attributive markers -n and *no* are reanalyzed as being the head of NP by the deletion of CP node, which is illustrated in (47) below.

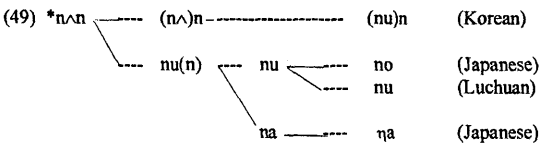
(47) a. [[[[...po$_i$....[m∧ingk∧l-o]$_{VP}$]$_{IP}$ Ø]$_{CP}$ *n*]$_{NP}$ - i
b. [[[[....fu$_i$....[tsukut-ta]$_{VP}$]$_{IP}$ Ø]$_{CP}$ *no*]$_{NP}$ - ga

Eventually, the CP node is deleted from each sentence. In short, the nominalizer *no* in Japanese is analyzed as being derived from the attributive marker. This is the idea that Yamada (1965) proposed earlier. I will return to this in Section 6.

The Japanese particle *no* is referred to as a nominalizer and also it is generally believed to be derived from the genitive marker *no* (e.g. Horie 1998 and elsewhere). Yamada (1965:419) argued that the present-day *no* might be a derivative of the OJ attributive *na*, which is found in fossilized forms, as in (48) below.

(48)	Old Japanese:	nami-*na*	to	ta-*na* soko	mi-*na* soko
	Modern Japanese:	nomi-*no*	oto	te-*no* hira	mizu-(*no*)-soko
		'wave sound'		'palm'	'water-bed'

Yamada (1965:419) also correlated the OJ morpheme *na* to the Luchuan *nu*, and suggested that **nu* might be the older form of the present-day Japanese *no*. In my view, Luchuan *nu* and OJ **nu* might be related to the Old Korean attributive marker *(n∧)n*, as shown in (49) below.[20]



To recapitulate, the Old Korean *n*-nominalization and the Old Japanese *no*-nominalization may have a common origin. I have shown that both are morphological markers for the attributive form, which were reanalyzed as nominalizing markers.

6. ATTRIBUTIVE USURPATION: A FUNCTIONAL EXPLANATION. We saw in Sections 3.2.2., 4 and 5, that particular inflectional forms participate in nominalizing verbs or adjectives in Korean and Japanese---attributive markers such as *ki* in Old Japanese, *-n* and *-l* in Old Korean. Why is it that the attributive form of verbals is particularly conducive to nominalization? I suggest that it is a natural consequence of the syntactic position the attributive marker occupies. There may be two things involved. First, the attributive marker is the closest element adjacent to the head noun. Second, the function of a head noun is to subordinate a clause as a nominal with respect to the matrix predicate by means of the attributive marker, which signals the end of the given subordinate clause. The attributive marker is thus considered as the most likely candidate for a nominalizer if the subordinating head noun is absent on the surface. This may be referred to as Attributive Usurpation.

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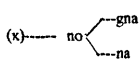
[20] Yamada suggested genetic relationships among Japanese nominalizer *no*, Luchuan *nu*, and the Old Japanese attributive *na*, as a tree given below.



I suspect that the OJ *na* that Yamada analyzed as the derivative of *no* may be of entirely different origin. A Korean word ney might be the cognate of the OJ *na*. The noun *ney* has diverse readings, and one of these readings is somewhat equivalent to the OJ *na*. The lexical item *ney* is strongly associated with the reading of a family or a clan, e.g. *Pak-ka-ney* (people of *Pak* family). The item *ney* also behaves like a genitive marker, as in *Pak-ka-ney cip* (Pak's house). The expressions like *nu-ney emeng* (the mother of you people), *samchwon-ney tok* (my uncle's chicken) are very common in Cheju Isalnd dialect. (See Martin 1992:711).

7. CONCLUSION. I have shown in this paper that, as in other major areas of their grammars, Japanese and Korean seem to have a systematic resemblance in the nominalization process.

I presented cross-linguistic data from the two languages and argued that historically they utilized four basic morphemes {*i, ki, m, Ø*} in nominalizing verbals. Both Korean and Japanese are apparently experiencing a transition in the nominalization process from morphology to syntax (rather than syntax to morphology) over time. Especially in sentence nominalization Korean depends on the format [....V]-*(nu)-n/l kes*, where an indefinite pro-nominal (*kes*) is introduced (immediately after the attributive markers, i.e. realis *(nu)-n* and irrealis *l*), as the head of the nominalized clause. The paradigm for sentential nominalization in Japanese is also typically [....V]-*no*.

It is a widely accepted view in the literature that the Japanese particle *no* is a nominalizer, which functions as the head of the clause it nominalizes. As for the derivation of the nominalizer *no*, there are two competing analyses: (i) the particle *no* from the homophonous genitive marker *no* by grammaticalization, and (ii) the particle *no* from the Old Japanese attributive marker *no* or even *na*, as an older form.

The observations I made in this paper seems to support the second view, represented by Yamada (1954) that the Modern Japanese *no*-nominalizer is derived from the old attributive marker *no* or *na*, which is in turn a cognate of the Korean attributive form *(nu)n* or its ancestral *(n∧)*n. In this view, the particle *no* is a fossilized form of the attributive marker, which inherited the nominalizing function from the pro-nominal head noun, when the latter is deleted for certain discourse-based reasons. I attribute this grammaticalization (from attributive to nominalizer) to the attributive-head word order. Specifically, in the attributive-head construction, the head tends to be elliptical, especially when it is a pro-nominal or is a noun which may be recoverable from discourse contexts. Being followed immediately by the head, the attributive form is structurally (thanks to the juxtaposition) posed for usurping the function of nominalization when the head deletion occurs. Hence, the grammaticalization from the attributive marker to the nominalizer.

One possible typological implication from this observation is that the grammaticalization of Attributive > Nominalizer at the juxtaposition of the attributive-head construct may be regular in SOV languages, since the former is specific to the latter.

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