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Grammaticalization of space in Korean and Japanese

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Spatial concepts are central for human language and cognition. They can either be the source or the target of grammaticalizations. In this paper, we compare grammaticalization in Japanese and Korean in four core areas related to space: case particles and related particles, relational nouns, postpositional verbs, and demonstratives. While the two languages are so well-studied that it would be unrealistic to expect any genuinely new findings through such a limited comparison, the area studied here yields a probably fairly representative window on the two languages, which is characterized by the following features: striking similarities in the structure of the grammaticalizations, most likely due to common (genetic or areal) inheritance, and little overlap in the lexical sources, except for core expressions that may represent a particularly old layer.

Keywords: Japanese, Korean, spatial case, particle, relational noun, postpositional verb, demonstrative

1. Introduction

Space has often been thought of as basic for human cognition (cf., e.g., Lakoff & Johnson 2003; Langacker 2008: 44). It is one of the most common domains of source concepts from which other lexical and grammatical notions are derived, and is therefore thought to play a vital role in semantic change and grammaticalization (cf., e.g., Lyons 1977; Heine, Claudi & Hünemeyer 1991; Heine 1997; Luraghi 2003).

In this article, we view spatial concepts as the target of grammaticalization, that is, we understand “grammaticalization of space” in the sense of the grammaticalization of functions which are potentially spatial in nature and may or may not have been grammaticalized from spatial sources. We are thus not pursuing the reverse possibility, namely, the grammaticalization of spatial source concepts for

grammatical functions. While it would be unrealistic to assume that we can cover all instances of spatial grammatical functions, we hope to cover the core areas of grammar where space may play a role as a target of grammaticalization. These are case and adpositional elements on the one hand, and demonstratives on the other hand. It is a well-known fact that spatial concepts expressed by adpositions in Indo-European languages may be expressed quite differently in other languages (cf., e.g., Levinson 2003). In Japanese and Korean, two salient and productive means to express spatial together with nonspatial meanings are relational nouns and postpositional verbs.

When comparing grammaticalization in two languages, (at least) three types of similarity can be distinguished:

- i. The same source morpheme, lexeme, or construction is grammaticalized (either being a cognate or borrowed from one language into the other).
- ii. A source morpheme/construction with the same meaning is grammaticalized.
- iii. The same sort of general structural pattern is grammaticalized, but with both etymologically and semantically unrelated morphemes/lexemes filling its slots.

Japanese and Korean are two languages whose genetic relationship is controversial. It would be unrealistic to assume that the comparison of the grammaticalization of spatial concepts in these two languages could come up with any new discoveries concerning their relationship. Nevertheless, it is hoped that the similarities and differences in grammaticalization in one of the domains presumably most basic for human language will offer a representative glimpse on how and to which extent the two languages typically resemble and differ from each other.

We will proceed as follows: Section 2 will deal with particles in the noun phrase, Section 3 with relational nouns, Section 4 with postpositional verbs, Section 5 with demonstratives, and Section 6 will provide an overall summary. Each section, except Section 6, will have a subsection for each of the two languages, followed by a short comparison.

2. Particles in the noun phrase

In the Korean and Japanese linguistic literature, the morphemes under discussion here are variously labeled as “postpositions” or “particles”. These are dependent morphemes which are relatively loosely suffixed to their host following other suffixes that are more intimately related to the stem. While the choice of the label may be a problem of naming rather than substance, we have opted for the functionally neutral term “particle” here. The reason is that in contrast to Indo-European adpositions, which in many languages assign case to nouns, the

morphemes we are dealing with here do not assign case to nouns. On the contrary, some of them mark case themselves. Since they have a wide range of functions, which includes equivalents to Indo-European case, adpositions, modal particles, scalar particles, etc., they merely constitute a morphological but not a semantic or functional class. Particles operating in the noun phrase can be roughly divided into (i) case particles, (ii) information structure and scalar particles, and (iii) others. The Japanese particles will be discussed in Section 2.1, the Korean ones in Section 2.2.

2.1 Japanese

In Japanese, the focus is on (i) case and (ii) information structure particles, some of which have spatial functions and/or are derived from sources with spatial meanings.

As for the morphological classification of elements – in some cases the distinction between particle and lexical noun is tricky – we follow Rickmeyer (1995). According to him, Modern Japanese has the following nine case particles (pp. 285–316):

- (1) *ga* nominative, *o* accusative, *ni* dative, *no* genitive, *de* essive, *e* allative, *to* comitative/quotative, *kara* ablative, *yorī* ablative

The following is a list of information structuring and scalar particles:

- (2) *wa* topic, *mo* focus/inclusion, *sae*, *sura* focus/extreme example, *koso* contrastive focus; *dake*, *bakari*, *nomi*, *sika* (+NEG) ‘only’, *made* ‘until, up to’, *dokoro* extent ‘far from’, *gurai/kurai*, *hodo* extent ‘about’

Other particles on noun phrases (group 3) are interrogative, interjectional, exemplative, modal, evidential, conditional, concessive, specialized, and colloquial quotatives, etc. They have no spatial functions, so they are not dealt with here at all.

Table 1 below shows the meanings/functions and lexical source meaning of the particles listed above, to the extent that they are available. The information about internal etymologies is taken from the JKD, Martin (1987), and the NKD. Those particles with a locative meaning are boldfaced. Old Japanese forms are put into brackets.

As Table 1 shows, the etymology of the majority of the particles is simply unknown. Proposals concerning their etymology have been made for practically every particle but we have not listed them here unless the etymology is uncontroversial or at least obvious. Most particles are historically very old, their origins going back to prehistoric times. There are five particles with a spatial meaning (*ni*, *e*, *yorī*, *kara*, *de*) but for only one of them (*e*) the lexical origin, with the meaning ‘place’ or ‘vicinity’, is

Table 1. Case particles and information-structuring particles and their sources

Particle	Meaning/function	Source form and meaning/function
<i>ga</i>	Nominative/Genitive	unknown
<i>i</i>	Nominative	unknown
<i>o (wo)</i>	Accusative	unknown
<i>ni</i>	Dative/Locative	unknown (perhaps copula)
<i>e (pye)</i>	Allative	<i>pye</i> (N) 'place/vicinity'
<i>no</i>	Genitive	unknown (perhaps copula)
<i>yorii(/yuri/yo/yu)</i>	Ablative/Comparative	unknown
<i>kara</i>	Ablative	<i>kara</i> (N) 'nature/origin' (?)
<i>de</i>	Essive/Locative	<i>ni-te</i> (p=p) DAT-GER
<i>to</i>	Comitative/Quotative	unknown
<i>wa (pa)</i>	Topic	unknown
<i>mo</i>	Additive Focus	unknown
<i>sae (sape)</i>	Focus/Extreme Example	unknown
<i>sura</i>	Focus/Extreme Example	unknown
<i>koso</i>	Contrastive Focus	unknown
<i>dake</i>	'only'	<i>take</i> (N) 'length/measure'
<i>bakari</i>	'only, just'	<i>hakari</i> (Vn) 'measure'
<i>nomi (nomwi)</i>	'only'	<i>no mwi</i> (p N) GEN + 'body' (??)
<i>sika</i>	'only'	unknown
<i>made</i>	Limitative 'until, up to'	<i>made</i> (N) 'both hands' (?)
<i>dokoro</i>	Extent 'far from'	<i>tokoro</i> (N) 'place'
<i>kurai/gurai</i>	(Small) Extent	<i>kurawi</i> (N) 'rank' < <i>kura-wi</i> (N-V) 'platform-sit'
<i>hodo (potwo)</i>	(Large) Extent	<i>potwo</i> (N) 'interval'

known with certainty. The origin of the information and scalar particles is, at least for some, more recent and can therefore be traced more easily. Two of them have a clearly spatial origin (*dake* 'length', *dokoro* 'place'), two have an origin in human activity (*bakari*, *kurai*), and one (*hodo*) originates in a temporal notion, which may of course be ultimately derived from a spatial notion.

2.2 Korean

In close parallel with Japanese, Korean has a large inventory of space-related particles that carry diverse grammatical and semantic functions. While there is no agreement among linguists on the defining criteria of the category "particle" (nor on the exact number of such particles), it is largely agreed, however, that the

particles consist of two subcategories: case particles (*kyekcosa*) and auxiliary particles (*pococosa*). The distinction, though not straightforward, largely coincides with that in Japanese: those that mark grammatical relationship (i.e. case particles) and those that participate in information structuring and and/or mark scalarity, as shown in (3) and (4) (adapted from the comprehensive reviews by Hong 1990 and Chae 1990, among others):¹

- (3) *i/ka/kkeyse* nominative, *ul/lul* accusative, *uy* genitive, *eykey/kkey/hanthey/tele/poko* dative, *ey/eyse* essive, *ey/lo/kkaci* allative, *wa/kwa/hako* comitative, *pwuthe/lopwuthe/eyse/eykeyse/hantheyse* ablative, *lo/losse* instrumental, *lo* translative, *ey/lo* causative, *wa/kwa/ey/hako/hamy*e enumerative, *pota* comparative, *mankhum/chelem/kathi* similative, *a/ya* vocative, *lo/lose* status, *neme* ‘over’
- (4) *nun* topic, *to* focus/additive ‘also’, *man/ppwun/pakkey* focus/exclusive ‘only’, *cocha/kkaci/mace* extreme example ‘even’, *mata* distributive ‘each’, *ssik* distributive ‘each’, limitative ‘as much’, *taylo* ‘according to’, *khenyeng* unexpected, *chiko* hypothetical topic, *sekken* inclusive ‘together with’, *ttala* adversative

Table 2 below shows the meanings/functions and lexical source meanings of the particles listed above, to the extent that they are available. The information about the sources is taken from various sources including Seung-Gon Kim (1989, 1992, 2004), Chae (1990), Hong (1990), Lee ([1961] 1992), among others.²

As Table 2 shows, there are particles whose etymology is unknown. Even though speculations have been offered as to their origin, most of these speculations, especially about the old forms, tend to limit themselves to determining the probable parts of speech of the items involved, based on the syntagmatic patterns in which they occur.

In terms of functions, there are twelve particles with a spatial meaning (*eykey*, *kkey*, *hanthey*, *tele*, *poko*, *ey*, *eyse*, *lo*, *kkaci*, (*lo*)*pwuthe*, *eykeyse*, and *hantheyse*), half of which (i.e. *eykey*, *kkey*, *hanthey*, *kkaci*, *eykeyse*, and *hantheyse*) have a lexical origin with the meaning of ‘place’ or ‘edge’. In terms of origins, in addition to the six particles just mentioned, the deferential nominative *kkeyse*, focus/extreme example *kkaci* (which, incidentally, diverged from the allative *kkaci*), and exclusive focus *pakkey* also developed from spatial meanings. Among those information and

1. Some of the forms separated by a virgule in (3) and (4) are in allomorphic relationship (e.g. *i* vs. *ka*; *ul* vs. *lul*; etc.); that is, their occurrence is conditioned by phonological environments. Variation between other forms is based on fine-grained semantic-pragmatic differences (e.g. *eykey* vs. *hanthey* vs. *kkey* vs. *tele* vs. *poko* for dative, etc.).

2. The transliteration of Korean data follows the Extended Yale System (Rhee 1996) for the characters in historical records.

Table 2. Case particles and information-structuring particles and their sources

Particle	Meaning/function	Source form and meaning/function
<i>i</i>	Nominative	unknown (possibly proximal demonstrative or third-person pronoun)
<i>ka</i>	Nominative	unknown
<i>kkeyse</i> (<i>kyeosye</i> ; <i>skuysye</i>)	Nominative (Deferential)	(i) <i>kye-si-e</i> ('exist'-HON-NF) (ii) <i>s-kuy-sye</i> (GEN-'place'-ABL)
(<i>l</i>) <i>ul</i> ((<i>l</i>) <i>Al</i>)	Accusative	unknown
<i>uy</i> (<i>Ay</i> , <i>i</i>)	Genitive	unknown
<i>eykey</i> (<i>Aykey</i> , <i>uykey</i> , <i>key</i>)	Dative	(i) <i>ay-ku-ekuy</i> (GEN-'that'-'place') (ii) <i>ay-ku-ngey</i> (GEN-'that'-'place')
<i>kkey</i> (<i>skuy</i> , <i>skey</i>)	Dative (Deferential)	<i>s-ku-ekuy</i> (GEN-'that'-'place')
<i>hanthey</i>	Dative	<i>han-tey</i> ('one'-'place')
<i>tele</i> (<i>tAlye</i>)	Dative	<i>tAli-e</i> ('lead/accompany'-NF)
<i>poko</i>	Dative	<i>po-ko</i> ('see'-NF)
<i>ey</i> (<i>ay</i> , <i>Ay</i> , <i>uy</i> , <i>yey</i>)	Essive/Allative/ Causative/Enumerative	unknown
<i>eyse</i> (<i>uysye</i> , <i>Aysye</i> , <i>eysye</i> , <i>yeysye</i>)	Essive/Ablative	<i>ey-isi-e</i> ('at'-'exist'-NF)
<i>lo</i> (<i>Alo</i> , <i>olo</i> , <i>lok</i> , <i>los</i>)	Allative/Instrumental/ Translative/Status	unknown
<i>kkaci</i> (<i>skAci</i> , <i>skAcang</i>)	Allative	<i>s-kAci</i> (GEN-'edge')
<i>wa/kwa</i>	Comitative/Enumerative	unknown
<i>hako</i>	Comitative/Enumerative	<i>hA-ko</i> ('say/do'-NF)
(<i>lo</i>) <i>pwuthe</i> ((<i>lo</i>) <i>puthe</i>)	Ablative	(<i>lo</i>)- <i>puthe-e</i> ((ALL)-'adhere'-NF)
<i>eysepwuthe</i>	Ablative	<i>eyse-pwuthe-e</i> (ESS-'adhere'-NF)
<i>eykeyse</i>	Ablative	<i>eykey-se</i> (DAT-ABL)
<i>hantheyse</i>	Ablative	<i>hanthey-se</i> (DAT-ABL)
<i>losse</i> (<i>lopse</i>)	Instrumental	<i>lo-psu-e</i> (INS-'use'-NF)
<i>kacko</i> (<i>kaciko</i>)	Instrumental	<i>kaci-ko</i> ('have'-NF)
<i>hamye</i> (<i>hAmye</i>)	Enumerative	<i>hA-mye</i> ('say/do'-CONN)
<i>pota</i> (<i>potaka</i>)	Comparative	<i>po-taku-e</i> ('see'-'approach'-NF)
<i>mankhum</i> (<i>mankom</i> , <i>makom</i> , <i>masskan</i> ...)	Similative	<i>makom</i> ('amount'(?))
<i>chelem</i> (<i>chyelo</i>)	Similative	<i>they-lo</i> ('body'-INS)
<i>kathi</i> (<i>kAthi</i> , <i>Athi</i> , <i>kAschi</i> ...)	Similative	<i>kath-i</i> ('be same'-ADVZ)
(<i>y</i>) <i>a</i> (<i>ha</i> , <i>ye</i>)	Vocative	unknown
<i>lose</i> (<i>losye</i>)	Status	<i>lo-se</i> (INS-ABL)
neme	over	<i>nem-e</i> ('go over'-NF)
(<i>n</i>) <i>un</i> ((<i>n</i>) <i>An</i>)	Topic	unknown
<i>to</i>	Additive Focus 'also'	unknown
<i>man</i>	Exclusive Focus 'only'	unknown

Particle	Meaning/function	Source form and meaning/function
<i>pakkey</i>	Exclusive Focus 'only' (NPI)	<i>pakk-ey</i> ('outside'-ESS)
<i>ppwun</i>	Exclusive Focus 'only'	<i>s-pwun</i> (GEN-'the only one')
<i>cocha</i> (<i>cochye</i>)	Focus/Extreme Example 'even'	<i>cochy-e</i> ('follow'-NF)
<i>kkaci</i> (<i>skAci</i> , <i>skAcang</i>)	Focus/Extreme Example 'even'	<i>s-kAci</i> (GEN-'edge')
<i>mace</i> (<i>mAcA</i>)	Focus/Extreme Example 'even'	<i>mAc-A</i> ('reach/encounter'-NF)
<i>mata</i>	Distributive 'each'	unknown
<i>ssik</i>	Distributive 'each'/Limitative 'as much'	unknown
<i>taylo</i>	Prolative 'according to'	unknown (<i>tA-lo</i> ('place'-INS) (?))
<i>khenyeng</i> ((<i>n</i>) <i>unkheniwa</i>)	Unexpected 'let alone' (NPI)	<i>un-hA-keniwa</i> (TOP-'say/do'-CONN)
<i>chiko</i>	Hypothetical Topic	<i>chi-ko</i> ('regard'-NF)
<i>sekken</i>	Inclusive 'together with'	<i>sekk-e-n</i> ('mix'-NF-?)
<i>ttala</i>	Adversative (on, among, etc.)	<i>ttalu-a</i> ('follow'-NF)

scalar particles with known lexical origins, some developed from verbal sources ('follow', 'reach/encounter', 'say/do', 'regard', and 'mix'). The verb *ha-* 'say/do' is a light verb which participates in the grammaticalization of a large number of grammatical markers, but often gets reduced or even disappears altogether largely for its lack of phonological prominence.³

2.3 Short comparison

While most of the particles as such in Japanese are very old, the modern case-marking system that they currently form is relatively young, as it is the outcome of historical changes that took place in Middle Japanese. The Korean case system has both a larger and more differentiated inventory than Japanese, as was already pointed out by Horie (2001), and elsewhere: it includes a much larger number of variants – unlike the Japanese forms, Korean case forms also include honorific variations – but also a large number of morphologically more complex forms, implying more retrievable etymologies. Taken together, this suggests that the Korean

3. Additional types of particles have been distinguished in a number of studies on particles. One particular class is directly affixed to nouns, and thus appears to be nominal. However, these particles are in fact simply variant forms of verbal particles in special phonological environments, specifically if the host noun ends with an open syllable and the verb is the copula *i-*, e.g. *N-i-na* > *N-na*; *N-i-nama* > *N-nama*, where *-na* and *-nama* are markers of enumerated options. In such phonological environments the copula *i-* becomes phonologically weak and is often subject to deletion. This phenomenon merits separate research in that the developmental path may eventually constitute a grammaticalization channel into nominal particles via verbal particles, but since they are not nominal particles *per se*, they are not listed here.

case system may be even younger than the Japanese system. Given that the modern case systems in Japanese and Korean are both relatively young, they exhibit few common sources; actually, the only apparently shared case particle in both languages is the nominative particle *i*, which may represent a fairly old layer. It would appear, then, that the current case systems developed long after the geographical separation of the two languages.

The information structure related particles contain on the whole even more relatively new formations than the case particles, and no apparent common etymologies. It can also be observed that Korean has both more particles expressing space-related meanings and more particles with a spatial origin, although space is not a dominant source for the expression of case and information structure in either language.

In summary, the overall system and structures in this area are extremely similar in both languages, but the concrete means of expression are too young to exhibit a large number of common sources.

3. Relational nouns

While the particles (or “postpositions”) listed in Section 2 are clearly grammaticalized as dependent morphemes, there is a second group of morphemes that correspond with adpositions in Indo-European languages but that have retained most of their lexemic properties. These morphemes, labeled “relational nouns” (or “relator nouns”; RN), are also known from other languages and often viewed as taking up an intermediate position in the grammaticalization between full lexemic nouns on the one hand and adpositions on the other hand (e.g. Heine, Claudi & Hünnemeyer 1991: 143; Blake 2004: 16; DeLancey 2004, 2011; Nichols 2004). They are common in Transeurasian languages, as documented for the Turkic languages by Johanson (2012), who labels them as “composite postpositions”, and positions them low on a scale of grammatical coding devices of spatial relations.

Relational nouns are typically used as head nouns in the following constructions, indicating the spatial relationship between two other entities:

- (5) Korean N *uy* RN
 Japanese N *no* RN

Semantically, they are characterized by the fact that they take “a certain relationship as its background concept and define... some entity which exists within this relationship in reference to another entity also within this relationship” (Tagashira 1999: 249; on Japanese RNs).

The question whether relational nouns have grammaticalized morphosyntactically is less straightforward. In order to determine their degree of grammaticalization, Tagashira (1999) tested them on a number of syntactic criteria which Heine, Claudi & Hünne Meyer (1991: 133) introduced as an “index of nominality”: the lower relational nouns score on this index, the higher their degree of grammaticalization. According to Tagashira (1999: 251), relational nouns differ from ordinary nouns with respect to the following five (out of a total of ten) “nominality” parameters:

- i. Ability to take demonstratives
- ii. Ability to take adjectival qualifiers
- iii. Ability to form the sentence subject when not being qualified by a genitive noun phrase
- iv. Ability to take first- or second-person possessive pronouns
- v. Ability to take third-person possessive pronouns as modifiers

With most of the (seven) relational nouns he tested, Tagashira (1999) found a lower degree of nominality, indicating a higher degree of grammaticalization (compared to purely lexemic nouns). However, without going into detail here, it is not difficult to find counterexamples to Tagashira’s judgments concerning (i), (iii), (iv), and (v), that is, Tagashira (1999) is clearly erring on the “grammaticalizing” side. Moreover, relational nouns’ lack of ability to take adjectival qualifiers as well as their relative difficulty to form the sentence subject without a modifier may not be the result of their grammaticalization but may merely be due to their semantics, which is to denote some relative location. For example, the Japanese nouns for the four cardinal directions (*kita* ‘north’, *minami* ‘south’, etc.) are usually not considered as “relational nouns” but they basically show the same constraints as the “relational nouns”. Also, the nouns in Table 3 that were never used frequently enough to become a component part of the pattern *N no RN*, and that are usually not considered relational nouns, have the same semantics as relational nouns and are subject to the same constraints. Overall, then, it remains doubtful to what degree these nouns can be considered to be grammaticalized from a morphosyntactic point of view, at least in their ordinary spatial-temporal uses.

We will now discuss relational nouns in Japanese (3.1) and Korean (3.2).

3.1 Relational nouns in Japanese

Table 3 shows the relational nouns in Japanese and their presumptive sources. The nouns in brackets have a very similar semantics to the relational nouns but, perhaps because of the competition with other nouns with a similar meaning, were never used frequently enough to become a component part of the pattern *N no*

Table 3. Japanese Relational Nouns (RNs)

Relational noun	Meaning/function	Lexical source
<i>mae</i>	in front (of), before	<i>ma-pe</i> (N-N) 'location of eye'
<i>usiro</i>	behind	pJ *u[ra]-siri (N-N) 'back-buttocks' (?); or *mu-siro (N-N) 'body-buttocks' (?)
(<i>saki</i>)	tip, front, top	unknown)
<i>ato</i>	trace, behind, after	pJ *a[si]-two (N-N) 'foot-?'
(<i>sirie</i>)	behind	<i>siri-pe</i> (N-N) 'location of buttocks')
<i>ue</i>	on, above	*u-pe (?-N) 'location of?' (??); or: *upa, cognate with pK *wuhu, pTg *ug-, etc. (cf. Robbeets 2005: 324); or: with K *ugi > ui > wi (Cho 2004); or: with K *üge > uhe/ühe > uh/ü (Kang 2010) (all meaning 'top')
(<i>kami</i>)	above	unknown)
<i>sita</i>	under	cognate with pK *sta- < *s(i)ta- 'ground'? (cf. Robbeets 2005: 403)
(<i>simo</i>)	under	pJ *siri-mwo (N-N) 'buttocks-side' (??)
(<i>moto</i>)	below, under	unknown); cf. K <i>mit(h)</i> < pK *mituh/mitoh/mot 'below' (Robbeets 2003: 237; 2005: 368; Kang 2010: 587)
<i>aida</i>	between	Unknown
<i>naka</i>	inside	Unknown
<i>uti</i>	inside	Unknown
<i>soto</i>	outside	pJ *so-t(u)-o(mo) 'back side' (??)
<i>yoko</i>	side	unknown; cf. K (<i>cok</i>) 'row, side' < pK *cwok 'side' or *nyekh 'side' (cf. Robbeets 2005: 321, 404)
(<i>kawa</i>)	side	*pJ kapa (N) 'side, direction'; cf. pK *kapo- 'be near', (Robbeets 2005: 403)

RN. The noun *sirie* listed here has even completely disappeared from the standard language in Early Modern Japanese.

As Table 3 shows, the sources of these relational nouns are often body parts in combination with a noun indicating "location" more generally. All the nouns presented here had already acquired their spatial meaning by Old Japanese, and thus there is some etymological speculation involved in reconstructing their sources.

In addition to their literal spatial meaning, some of the nouns have developed further figurative, and sometimes grammatical, meanings and functions such as the following (cf. NKD entries; Tagashira 1999, Section 5):

- i. Abstract location; e.g. social position: *ue*, *sita*, *mae*
- ii. Addition: *ue*, *ato*

- iii. Temporal relation: *mae*, *ato*, *aida*, *uti*, *sita*, *naka*; these nouns (except *sita* and *naka*) also serve as head nouns to adverbial clauses with a temporal function. Note that among the nouns in Table 3, *ato* is the only one which is primarily used for temporal, and not spatial meanings in Modern Japanese.
- iv. Reason: *ue*; also as a head noun to an adverbial clause

Although cardinal directions in Japanese are generally not considered to be grammaticalized, following their discussion in more general studies on grammaticalization (particularly Heine 1997: 49–55), we will briefly mention their possible sources here. *Nisi* ‘west’ is commonly interpreted as *ini-si* ‘direction of [the sun] disappearing’, and *higasi* as *pi-muka-si* ‘direction of facing the sun’ or *pi-kasira* ‘head of the sun’; that is, both terms are usually considered as Japanese-internal developments. For *kita* ‘north’ and *minami* ‘south’, some speculation has linked these terms to Turkic, Mongolic, and Tungusic etymons (cf. Robbeets 2003: 155–156, 223), but Robbeets (2005: 249, 255, 315) rejects the external etymologies on phonological grounds. ‘Left’ (*hidari*) and ‘right’ (*migi*) are likewise usually not considered to be relational nouns. Their etymology is basically obscure but obviously Japanese-internal rather than Transeurasian. It may be of interest, though, that similar to the corresponding Korean terms (cf. 3.2), which have been related to cardinal directions, one of the possible etymological sources mentioned for *hidari* (OJ *pidari/pitari*) ‘left’ is **pi-itari*/**pi-N-tari* (‘where the sun arrives/go down’), that is ‘West’.

As in Korean, most Japanese relational nouns have Sino-Japanese counterparts, which are presented in Table 4, together with their spelling in Chinese/Japanese. In writing, the character of the Sino-Japanese morpheme is also used for the native Japanese morpheme, which indicates close semantic correspondence.

Table 4. Native Japanese relational nouns and Sino-Japanese counterparts

Sino-Japanese morphemes	Character	Meaning/function	Native Japanese
- <i>zen</i> , <i>zen</i> - (-n, q-)	前	before	<i>mae</i>
- <i>go</i> (N, -n)	後	after	<i>usiro</i>
- <i>zyoo</i> (-n)	上	on	<i>ue</i>
<i>ge</i> (N, -n); - <i>ka</i> (-n)	下	under	<i>sita</i>
- <i>nai</i> (-n)	内	among	<i>uti</i>
- <i>tyuu</i> (N, -n)	中	inside	<i>naka</i>
- <i>gai</i> (-n)	外	outside	<i>soto</i>
- <i>kan</i> (N, -n)	間	between	<i>aida</i>

As the morpheme glosses in Table 4 indicate, the majority of the Sino-Japanese counterparts only function as affixes, and not as full nouns. The following are examples of their usage:

- (6) a. *tyuusyoku-go*
 ('lunch'-'after'; N-n) – 'after lunch'
 b. *kikan-nai*
 ('period of time'-'within'; N-n) – 'within the period of time'
 c. *keiken-zyoo*
 ('experience'- 'above'; N-n) – from experience

As can be seen from these examples, the Sino-Japanese morphemes usually do not occur in the construction "N *no* RN", but are affixed directly to other nouns, especially other Sino-Japanese nouns.

The second major difference, as is also illustrated by the examples in (6), is that as a group the Sino-Japanese morphemes are more commonly associated with temporal and abstract meanings than with spatial meanings. Thus, at least in Modern Japanese, functional and semantic overlap or competition between the Native Japanese relational nouns on the one hand, and the Sino-Japanese suffixes on the other hand, is extremely limited. It is mostly confined to cases where the Japanese noun is used temporally like a Sino-Japanese suffix, and suffixed to another noun. Examples are in (7):

- (7) a. Japanese
is-syuukan-mae
 ('one' -'week'-'before') – 'one week ago'
 b. **is-syuukan-zen*
 ('one'-'week'-'before') – 'one week ago'
 c. *?is-syuukan-ato*
 ('one'-'week'-'after') – 'one week later'
 d. *is-syuukan-go*
 ('one'-'week'-'after') – 'one week later'

'One week ago' and 'one week later' seem to be exact equivalents, but in one case the native Japanese noun must be used (7a), and in the other case the Sino-Japanese suffix (7d). This case shows that, even if there is potential overlap, the competition is usually resolved by convention.

Thirdly, some of the Sino-Japanese morphemes have been recorded from earliest times (e.g. *-zen*) but others are relatively new (e.g. *-gai* from the Edo period). They are thus part of the gradual "sinification" (cf. Frellesvig 2010: 258–294) of the

Japanese language, but are still less entrenched in the language than their Japanese counterparts. Since these nouns are basically borrowings, it is interesting to note that the borrowings do not occur at the level of lexemes with literal, spatial meanings, but instead at the level of suffixes, with already abstract meanings.

3.2 Relational nouns in Korean

Table 5 shows relational nouns in Korean and their presumptive sources. A number of historical dictionaries were used as references for the lexical sources (e.g. Yu [1964] 2000; Cho 2004; Nam 2007; Kang 2010), but since many of the proposed etymologies remain speculative, the lexical sources listed in the table are limited to those for which there is sufficient historical evidence.

As Table 5 shows, the sources of the relational nouns are mostly body parts ('back', 'anus', 'buttocks'), cardinal directions ('south', 'north'), and place nouns with preceding adjectival modifiers ('middle-place', 'wrong side', 'correct side'). All the nouns presented here had already acquired their spatial meaning by Late Middle Korean, the oldest period with extant data in the Korean writing system, Hangeul. There is some etymological speculation involved in reconstructing possible deeper sources beyond that period, notably in Kang's (2010) and Cho's (2004) discussion from a comparative linguistic perspective, but unlike the more grammaticalized particles, relational nouns have in many cases more transparent sources.

Table 5. Korean Relational Nouns (RNs)

Relational noun	Meaning/function	Lexical source in Late Middle Korean
<i>aph</i>	front	<i>alph, alp</i> (N) 'front', 'south'
<i>twi</i>	back	<i>twut, twul, twih, twi</i> (N) 'back, anus', 'north'
<i>wi</i>	top	<i>wuh</i> (N) 'top'
<i>alay</i>	below	<i>alayh</i> (N) 'bottom, lower region'
<i>mith</i>	bottom	<i>mith</i> (N) 'bottom, lower region'; <i>mit, mith</i> (N) 'core', 'anus', 'buttocks'
<i>sai, say</i>	between	<i>sAzi, sAi</i> (N) 'gap'
<i>an</i>	inside	<i>anh</i> (N) 'inside, heart, mind'
<i>pakk</i>	outside	<i>pask</i> (N) 'outside'
<i>kawuntey</i>	middle	<i>kavAn-tAy, kaon-tAy</i> (A-N) 'middle-place'
<i>oyncckok</i>	left	<i>oyN-nyek, oyn-ccok</i> (A-N) 'left-side' 'wrong-side'
<i>oluncckok, paluncckok</i>	right	<i>olhAn-nyek olhAn-ccok</i> (A-N) 'right-side', 'correct-side', <i>palun-ccok</i> (A-N) 'correct-side'
<i>yeph</i>	side	<i>nyep</i> (N) 'loin, armpit, side'
<i>kyeth</i>	side (adjacent region)	<i>kyes, kyet</i> (N) 'side area, side'

Of special interest are the sources of cardinal directions. According to *Sincungyu-hap*, dated from 1576, *alp* meant ‘south’ in addition to the primary meaning of ‘front’. Likewise, *Hunmongcahoy*, dated from 1527, and *Sincungyu-hap* list *twi* as denoting ‘north’ in addition to ‘back’. Kang (2010: 950) suggests a relationship between Korean *oyŋ* (A) ‘left’ and Old Turkish *öŋ* ‘east’ (citing von Gabain 1950) and written Mongolian *jegün* ‘east, left’. Therefore, even though there is no obvious etymological relationship between ‘right’ and ‘west’, the historical records are sufficiently suggestive of partial etymological relations between the deictic and cardinal orientations. Indeed, Heine (1997: 57) states that deictic orientation is among the main sources for cardinal orientation. A peculiarity in Korean, however, is that the reference orientation in the cardinal system is a person facing south, which is crosslinguistically rare, and not noted in Brown’s (1983) survey of cardinal orientation in 127 languages. Hock & Joseph (1996: 247–248) only found it in a pure form in “Altaic” languages such as Mongolian and Kalmyk. Robbeets (p.c.) suggests that it is a Trans-eurasian feature. Incidentally, the most canonical type is one with a person facing the east (presumably because of its association with sunrise). In contrast, the Hawaiian system is based on a person facing the west (Heine 1997: 52–57).

Another peculiarity is that the sources for ‘left’ and ‘right’ have to do with the evaluative judgment of ‘wrong’ and ‘right’, respectively. According to Werner (1904: 427–428, as cited in Heine 1997: 48–49), this is in fact a very common pattern in the 300-plus Bantu languages. Studies in other languages also strongly suggest that this relationship holds across many languages.

The relational nouns for ‘left’, ‘right’, and ‘middle’ were derived from source constructions consisting of an adnominalized (marked by *-n*) modifier and a head noun denoting ‘side’ or ‘place’.

In close parallel with Japanese, most Korean relational nouns have Sino-Korean counterparts, which are presented in Table 6, together with their spelling in Chinese, adapted from Rhee (2011).

Table 6. Native Korean relational nouns and Sino-Korean counterparts

Sino-Korean morphemes	Character	Meaning/function	Native Korean
<i>cen</i>	前	front	<i>aph</i>
<i>hwu</i>	後	back	<i>twi</i>
<i>sang</i>	上	top	<i>wi</i>
<i>ha</i>	下	bottom	<i>alay, mith</i>
<i>nay</i>	内	inside	<i>an</i>
<i>cwung</i>	中	middle	<i>kawuntey</i>
<i>oy</i>	外	outside	<i>pakk</i>
<i>kan</i>	間	gap	<i>sai</i>

While the Sino-Korean counterparts of the Korean relational nouns have traditionally been considered to be nouns, as indicated in the writing conventions, they are morphologically dependent on preceding lexemes and are thus suffixes, like their Sino-Japanese counterparts. Furthermore, as (8) shows, they are usually followed by the locative particle *ey* ‘at’ to function like spatial postpositions.

- (8) a. *cen-ey* (‘front’-‘at’): ‘before’
 b. *hwu-ey* (‘back’-‘at’): ‘after’
 c. *sang-ey* (‘top’-‘at’): ‘on’, ‘above’
 d. *ha-ey* (‘bottom’-‘at’): ‘under’
 e. *nay-ey* (‘inside’-‘at’): ‘within’
 f. *cwung-ey* (‘middle’-‘at’): ‘among’
 g. *oy-ey* (‘outside’-‘at’): ‘except for’
 h. *kan-ey* (‘gap’-‘at’): ‘between’

(9) exemplifies Sino-Korean morphemes suffixed to other nouns (cf. the parallel Japanese examples in (6)).

- (9) a. *cemsim-hwu-ey*
 (‘lunch’-‘after’) – ‘after lunch’
 b. *sikan-nay-ey*
 (‘period of time’-‘within’) – ‘within the period of time’
 c. *kyenghem-sang-ey*
 (‘experience’-‘above’) – ‘from experience’

The fact that the Sino-Korean morphemes do not occur in the construction “N *uy* RN” with the genitive *uy*, but are affixed directly to other nouns (especially other Sino-Korean nouns) marks a sharp contrast with the native Korean relational nouns, which display formal variation between the full forms with the genitive *uy* and those without.

The second major difference, as is illustrated by the examples in (10), is that as a group the Sino-Korean relational nouns are more commonly associated with temporal and abstract meanings than with spatial meanings. Rhee (2004, 2006b) showed that the native Korean and Sino-Korean relational nouns exhibit specialization between spatial designation on the one hand and temporal and abstract designation on the other. The specialization did not proceed to the point of mutually exclusive distribution as there are cases where both are acceptable (a-a’), or the use of one is more acceptable than the other (b-b’), or only one of the two is allowed (c-c’), as shown in the examples in (10):

- (10) a. *il-cwuil-twi-ey* (Native K)
 (‘one’-‘week’-‘back’-‘at’) – ‘one week later’

- a'. *il-cwuil-hwu-ey* (Sino-K)
(‘one’-‘week’-‘back’-‘at’) – ‘one week later’
- b. [?]*il-cwuil-aph-ey* (Native K)
(‘one’-‘week’-‘front’-‘at’) – ‘one week ago’
- b'. *il-cwuil-cen-ey* (Sino-K)
(‘one’-‘week’-‘front’-‘at’) – ‘one week ago’
- c. **kyeyyakse-wi-ey* (Native K)
(‘contract’-‘top’-‘at’) – ‘according to a contract’
- c'. *kyeyyakse-sang-ey* (Sino-K)
(‘contract’-‘top’-‘at’) – ‘according to a contract’

Considering that the Sino-Korean relational terms must have had a shorter history than the native Korean terms in the history of Korean, the specialization of the Sino-Korean terms in a more abstract domain as compared to the Korean counterparts is peculiar. According to Rhee (2004: 186), this situation suggests that if a new competing system is imported for a certain grammatical paradigm, the extant system is not pushed up to encode more abstract grammatical notions along the ontological cline suggested by Heine, Claudi & Hünemeyer (1991). Instead, the extant system may specialize in its originally established function, yielding the more advanced domain to the new system.

3.3 Short comparison

The overall situation with relational nouns resembles that with the particles discussed in Section 2: the structures and distribution of forms for functional domains exhibit a striking parallelism. The pattern that a noun with body part or spatial meaning is combined with a noun meaning ‘place’ or ‘direction’ is also found in both languages.⁴ Possible overlap in lexical sources includes the following items: J *u(-pe/pa)* and K *wuh* for ‘above’ (cf. Robbeets 2003: 421; Cho 2004: 377–378; Robbeets 2005: 324, 404); J *moto* and K *mit(h)* for ‘below’ (cf. Robbeets 2003: 237; Kang 2010: 587); J *sita* ‘below’ and pK **sta- < *(i)ta-* ‘ground’ (cf. Robbeets 2005: 403); OJ *kapa* ‘side’ and pK **kapo-* ‘be near’ (cf. Robbeets 2005: 403); J *yoko* ‘side’ and K *(c)cok* ‘row, side’ or *nyek(h)* ‘side’ (cf. Robbeets 2003: 138; 2005: 404). If ordinary nouns in either language are included, there are also the obvious relationships between MK *anh* ‘interior, inside’ and J *ana* ‘hole’ (cf. Robbeets 2005: 402, 462), and between K *pakk* (MK *pas~pask*) and OJ *pasi* ‘extremity’ (cf. Robbeets 2005: 403). Remarkably, according to the etymological literature summarized in

4. Martine Robbeets (p.c.) has pointed out to us that this pattern is found widely in Transeurasian languages as well, e.g. in Turkic, Tungusic, and Mongolic.

Robbeets (2005), most of these pairs of nouns do not have cognates outside Japanese and Korean. While Japanese seems to have more nouns expressing some relative spatial location, those actually used grammatically do not outnumber their Korean counterparts. While in Japanese a compounding pattern (N + N) is salient, in Korean the use of some relational nouns for cardinal directions stands out. A striking similarity is the almost complementary sharing of spatial vs. temporal functions between native relational nouns and nominal suffixes borrowed from Chinese.

4. Postpositional verbs

Both Korean and Japanese have a number of verbs that fulfill relational functions with abstract meanings, and are derived from more concrete, sometimes spatial meanings. From a crosslinguistic perspective, they can be understood as a sort of converb (cf. Haspelmath 1995), but we will label them here as “postpositional verbs” (PV). As with the relational nouns discussed in Section 3, the degree to which they are grammaticalized is not a clear-cut issue. Their basic structure is represented in (11):

- (11) Korean N=*ey/ul* PV+-*ko*, -*a*, -*e*
 Japanese N=*ni/o* PV_b/V_b+*Te*

Ey and *ul* in Korean are the locative-dative and accusative case particles and *ni* and *o* their Japanese counterparts. In some cases, the preceding noun has a different case marking, and/or the verb has a different inflectional form, but the concrete forms will be listed in the subsections on each language. Given that in both languages these semi-grammaticalized verbs govern the case of the noun phrase preceding them, they are the elements structurally corresponding most closely to adpositions in Indo-European languages (cf. Suzuki 1972: 499–500; Takahashi 2003: 266–267). They show the following features characteristic of grammaticalization:

- i. Impossibility to insert other elements (e.g. particles) between the noun phrase + case particle and the verb (cf. Miyake 2005: 69)
- ii. Impossibility to use in coordinate structures with each noun being case marked (cf. Miyake 2005: 69)
- iii. Constraints on the inflection of the verb
- iv. Loss of argument structure

Without going into any detail here, as Miyake (2005: 69) points out for criteria (i) and (ii), the applicability of these criteria differs from verb to verb and thus we do not have a clearly delineated class of verbs but instead a class with more and less

prototypical members. Nevertheless, we can claim here that this class has at least a number of members which are more clearly morphosyntactically grammaticalized than was the case with the relational nouns.

The postpositional verbs will be discussed in the order Japanese (4.1) and Korean (4.2).

4.1 Postpositional verbs in Japanese

Table 7 lists, in the first column, a selection of the most common postpositional verbs in Japanese, following descriptions in Suzuki (2007) and Tanaka (2010). These are presumably also the PVs which show the highest degree of grammaticalization. Those marked with the percentage symbol “%” are based on a Sino-Japanese morpheme, and the Chinese character representation in the next column is without parentheses. Most PVs listed here can be used in the verb base form and with the *-Te* ending without much difference, except *ni tuite/ni tuki*, which are therefore listed separately. Those postpositional verbs which have spatial functions are in boldface, and lexical sources with a spatial component are in boldface as well.

As the table shows, most of the postpositional verbs have metaphorical and abstract, nonspatial functions but many have a lexical source with a spatial (in particular, motion) component.

Furthermore, it is worth pointing out that none of these postpositional verb constructions, except for *to site*, have been inherited from Proto-Japanese but are the result of historically documented developments from Late Old (Early Middle) Japanese on. It is reasonable to assume that the development of the class as a whole has been spurred by the practice of transposing Chinese into Japanese, rendering Chinese monosyllabic function words with short Japanese verb phrases. Some of these constructions (e.g. *o motte*, *ni oite*) may be complete calques (cf. Yamada 1935; Chen 2005). The Chinese words on which they are based, or by which they may at least have been influenced, have been provided in brackets in the second column of Table 7.

4.2 Postpositional verbs in Korean

Table 8 lists a selection of the most common postpositional verbs in Korean; the ones with spatial functions are in boldface, as are lexical sources with a spatial component. The verbs marked with a percentage symbol % are based on a Sino-Korean morpheme.⁵ The native Korean PVs have largely been taken from Rhee (2002) and the Sino-Korean ones from Rhee (2006a).

5. Note that some of the PV forms are listed as postpositional particles in Table 2.

Table 7. Postpositional verbs in Japanese

Postpositional verb	Sino-Japanese source/ (Source of presumptive calque)	Meaning	Lexical source
<i>ni atatte</i>	(當)	in the course of	<i>atar-</i> (V) 'to hit upon'
<i>ni itatte</i>	(至)	coming to/at	<i>itar-</i> (V) 'to arrive'
<i>ni oite</i>	(於)	at/concerning	<i>ok-</i> (V) 'to put'
<i>ni kagitte</i>		limited to/only	<i>kagir-</i> (V) 'to limit'
<i>ni kagirazu</i>		not limited to	<i>kagir-</i> (V) 'to limit' + -(a)zu NEG
<i>ni kakawarazu</i>		regardless of	<i>kakawar-</i> (V) 'to relate to' + -(a)zu NEG
% <i>ni kansite</i>	関	concerning	<i>kans-</i> (V) 'be related to'
% <i>ni hansite</i>	反	against	<i>hans-</i> (V) 'to go against'
% <i>ni saisite</i>	際	at the occasion of	<i>sai</i> (N) 'occasion'
<i>ni sitagatte</i>		following	<i>sitagaw-</i> (V) 'to follow'
% <i>ni taisite</i>	對	towards, against	<i>tais-</i> (V) 'to face'
<i>ni tuite</i>		about	<i>tuk-</i> (V) 'to attach to'
<i>ni tuki</i>		concerning	<i>tuk-</i> (V) 'to attach to'
<i>ni turete</i>		accompanying	<i>ture-</i> (V) 'to accompany'
<i>ni totte</i>		as for	<i>tor-</i> (V) 'to take'
<i>ni tomonatte</i>		accompany	<i>tomonaw-</i> (V) 'to accompany'
<i>ni mukatte</i>		towards	<i>mukaw-</i> (V) 'to face'
<i>ni mukete</i>		towards	<i>muke-</i> (V) 'to turn towards'
<i>ni motoduite</i>		based on	<i>motoduk-</i> (V) 'to be based on'
<i>ni yotte</i>	(由、因)	by, because of	<i>yor-</i> (V) 'to come near, to depend on'
<i>ni watatte</i>		extending over, across	<i>watar-</i> (V) 'to range, to extend over'
<i>o megutte</i>		about	<i>megur-</i> (V) 'to circle around'
<i>o motte</i>	(以)	with	<i>mot-</i> (V) 'to hold'
<i>o toosite</i>	(通)	through	<i>toos-</i> (V) 'to pass through'
<i>o towazu</i>		regardless of	<i>tow-</i> (V) 'to question' + -(a)zu NEG
<i>to site</i>		as	<i>s-</i> (V) 'to do'

As shown in the morphological breakdown of the instances in Table 8, PVs typically follow a postpositional particle and are followed themselves by the nonfinite markers *-ko*, *-a*, and *-e* (the last one changing into *y* or *ye* if preceded by the light verb *ha-*). The fact that the PVs almost invariably require a nonfinite marker indicates that they form serial verb constructions, in which the PV is becoming a clausal connective through the process of clausal compacting.

Table 8. Postpositional verbs in Korean

Postpositional verb	Sino-Korean source	Meaning	Lexical source
<i>ul twu-ko</i>		about (Topic)	<i>twu-</i> (V) 'to place, to store'
<i>ul noh-ko</i>		about (Topic)	<i>noh-</i> (V) 'to place, to release'
<i>e noh-ase</i>		because (‘helplessness’ reading)	<i>noh-</i> (V) 'to place, to release'
<i>ey ttal-a</i>		according to	<i>ttalu-</i> (V) 'to follow'
<i>ul ttal-a</i>		along, according to	<i>ttalu-</i> (V) 'to follow'
<i>ey tak-a</i>		onto	<i>taku-</i> (V) 'to draw near'
<i>e tak-a</i>		and (Emphatic Connection)	<i>taku-</i> (V) 'to draw near'
<i>ey tay-ko</i>		to	<i>tay-</i> (V) 'to touch'
<i>lo pwuth-e</i>		from	<i>pwuth-</i> (V) 'to adhere'
<i>eyse pwuth-e</i>		from	<i>pwuth-</i> (V) 'to adhere'
<i>%ey tayha-y</i>	對	regarding, about	<i>tayha-</i> (V) 'to encounter'
<i>%ul wiha-y</i>	爲	for	<i>wiha-</i> (V) 'to serve, take care of'
<i>%ey uyha-y</i>	依	by	<i>uyha-</i> (V) 'to rely on'
<i>%ey piha-y</i>	比	as compared to	<i>piha-</i> (V) 'to compare with'
<i>%ey inha-y</i>	因	because of	<i>inha-</i> (V) 'to stem from'
<i>%ul/lo hyangha-y</i>	向	in the direction of	<i>hyangha-</i> (V) 'to head for'
<i>%ey kwanha-y</i>	關	regarding, about	<i>kwanha-</i> (V) 'to relate to'
<i>%ey panha-y</i>	反	contrary to, unlike	<i>panha-</i> (V) 'to oppose'
<i>%ey hanha-y</i>	限	restricted to	<i>hanha-</i> (V) 'to restrict'
<i>%ul kiha-y</i>	期	as of	<i>kiha-</i> (V) 'to fix'
<i>%ul kyemha-y</i>	兼	as well as	<i>kyemha-</i> (V) 'to add to'
<i>%ey cwunha-y</i>	準	following	<i>cwunha-</i> (V) 'to observe'
<i>%ey myenha-y</i>	面	adjacent to	<i>myenha-</i> (V) 'to face'
<i>%ey yenha-y</i>	聯	in connection with	<i>yenha-</i> (V) 'to connect to'
<i>%ul kyekha-y</i>	隔	with a distance of	<i>kyekha-</i> (V) 'to distance from'
<i>%ul ceyha-ko</i>	除	except for	<i>ceyha-</i> (V) 'to remove'

There are sixteen cases of PVs involving Sino-Korean morphemes. Many more forms involve Sino-Korean words that fit into the general template of [case particle V-NF]. However, the sixteen cases listed in the table constitute a unique class in that the Sino-Korean verbs at the V position contain a monosyllabic Chinese word, which is considered as a defective nominal in Korean but is almost never used by itself.

Besides the PVs in Table 8 which show a structure similar to that in Japanese, Korean has a smaller group of verb-derived particles with adpositional-like functions, as shown in Table 9.

Table 9. Postpositional particles from PVs in Korean

Postpositional verb	Meaning	Lexical source of the verb
<i>twu-ko</i>	Comparative 'than'	<i>twu-</i> (V) 'to place, to store'
<i>nem-e</i>	Postessive 'over, behind'	<i>nem-</i> (V) 'to go over'
<i>mac-e</i>	Focus/Extreme Example 'even'	<i>mac-</i> (V) 'to encounter'
<i>coch-a</i>	Focus/Extreme Example 'even'	<i>coch-</i> (V) 'to follow'
<i>ttal-a</i>	Locative 'on, at' (with adversative/ mirative connotation)	<i>ttalu-</i> (V) 'to follow'
<i>pwuth-e</i>	Ablative 'from'	<i>pwuth-</i> (V) 'adhere'
<i>ha-ko</i>	Comitative 'with, along with'	<i>ha-</i> (V) 'do/say' (light verb)
<i>ha-mye</i>	Enumerative 'and'	<i>ha-</i> (V) 'do/say' (light verb)
<i>chi-ko</i>	Hypothetical Topic 'as for'	<i>chi-</i> (V) 'regard, count in'
<i>kac-ko</i> (<i>kaciko</i>)	Instrumental 'with'	<i>kaci-</i> (V) 'have, take'
<i>tel-e</i>	Dative 'to'	<i>tAli-</i> (V) 'lead, accompany'
<i>po-ko</i>	Dative 'to, in view of'	<i>po-</i> (V) 'see'
<i>po-ta</i>	Comparative 'than'	<i>po-</i> (V) 'see'
<i>kath-i</i>	Similative 'like'	<i>kath-</i> (V) 'be same'

With the exception of the first item *twu-ko* 'than', these items were already listed in Table 2. Unlike the PVs in Table 8, which depend on the presence of particles on the preceding noun such as *ey*, *ul*, etc., these postposition-like PVs no longer govern case-marked nouns but directly follow unmarked nouns as suffixes. They have thus grammaticalized further into particles either as a marker of case or of information structuring and scalarity. Furthermore, there are items that show a minimal pair relationship in terms of function in that the same lexical item may have divergent functions depending on presence of a preceding postpositional particle; for instance, *ey ttala/ul ttala* denote 'according to' whereas *ttala* conveys 'adversative' meaning, both from *ttalu-* 'follow'. There are also cases in which the use of a postpositional particle is optional. For instance, the dative *poko* derived from 'see' occurs most frequently in the form of *poko* but sometimes it occurs following an accusative (postpositional) marker, which reflects the original source construction.

4.3 Short comparison

The pattern discussed here is a recent one, probably the most recent one of the patterns discussed in this paper. In Japanese with its longer documented history, practically all the verbs developed in historically documented times. As in the preceding sections, the structural similarities between Japanese and Korean are

striking. Both languages have a relatively open class of verbs in adverbial forms that are functionally equivalent to adpositions, and which are in a process of grammaticalization. In both languages, some of these verbs are based on Sinitic stems which are otherwise not used as independent morphemes. Furthermore, some of the verbs even have the same Sinitic sources (e.g. J *tai*/K *tay*; J *kan*/K *kwan*), while there are no apparent common sources for the native verbs; as for the common semantic basis of the PV pattern, cf. Matsumoto (1998) and Rhee (2002).⁶ However, unlike the grammatical patterns discussed in all other sections of this paper, the PV-patterns in the two languages show an important difference: Korean has a number of postpositional verbs which have actually grammaticalized into particles (see Table 9). In Japanese, grammaticalization has not progressed that far. An additional, minor difference is that some of the Japanese postpositional verbs have developed as calques from Chinese, while in Korean they were borrowed directly. The Japanese development is due to the fact that in Japanese a tradition of translating Chinese text into a mixed Sino-Japanese style developed. In contrast, in Korean Chinese texts were read in the original, which makes calques less likely to develop.

5. Demonstratives

Deictic words in languages are very basic, and may have considerable time depth, thus providing potential hints for a common genetic (or areal) origins. This is also true for the Japanese and Korean deictic paradigms.

5.1 Japanese demonstratives

Modern Japanese has the so-called *ko-so-a-do* paradigm of deictic words, *ko-* roughly standing for speaker-proximate, *so-* for hearer-proximate, *a-* for removed from speaker and hearer, and *do-* for interrogative. These roots combine with erstwhile endings, yielding sets on *-ko* (place; *koko*, *soko*...), *-re* ('person, thing'; *kore*, *sore*...), *-no* (genitive; *kono*, *sono*...), etc.

At the earliest documented stage of Japanese, in Old Japanese, *ko* and *so* are still documented without endings. The forms *a-* or *do-* did not (yet) occur, but there was the form *ka-*, whose status is contested, and the form *i(du)-* for interrogation. Li (2002: 156), in his historical study of the Japanese demonstrative system, posits a system with two oppositions, namely *ko(-)* vs. *so(-)* as spatial-temporal vs.

6. Note, though, that Matsumoto (1998) does not recognize the fact that some of the postpositional verbs are calques from Chinese, and posits an internal semantic development for all of these verbs in Japanese.

anaphoric deixis and *ko(-)* vs. *ka-* as proximal vs. remote within spatial-temporal deixis. Frellesvig (2010: 141) denies all relevance for *ka*, and only acknowledges proximal *ko* vs. non-proximal *so* (plus *i-* for interrogative). He points to the probable existence of a proximal deictic *i-* for Proto-Japanese, visible in lexicalized remnants such as *ima* ‘now’. There are no apparent lexical sources for the demonstratives within Japanese. Instead they are most likely a common heritage with Korean and other Transeurasian languages (cf. Section 5.3), except for the distals (*ka-*, *a-*), whose origin is unclear.

From Early Middle Japanese on, *a-* started to replace *ka-*, and eventually, *i(du)-* became *do-*. Besides their anaphoric function, which had been present from the beginning, the demonstratives also assumed various functions in discourse; that is, they started being used as equivalents of personal pronouns (especially the *-re* series) and as interjections (*ano*).

5.2 Korean demonstratives

Researchers of Korean traditionally used the tripartite distinction of demonstratives for proximal, medial, and distal, a system that seems to have been established by Middle Korean (Hyung-Chul Kim 1981: 10). The system is as follows (Sheon-Gi Kim 1975; Choe [1929] 1989: 240–241; Lee [1961] 1992: 224; Dong-So Kim 2002: 144–145):

- (12) a. proximal: *i*
 b. mesial: *ku*
 c. distal: *ce* (< *tye*)⁷

Since *ku* may be used to refer to a distant object, the term “mesial” is better replaced by “nonproximal”. The problem of functional overlap between *ku* and *ce* for a distal object is partially solved by a division of labor, in that *ce* only marks objects within the visual field, either physical or rhetorically imagined for vividness.

From early on in the history of the Korean language, these demonstratives functioned either as pronouns or adjectives modifying a noun. When used as modifiers, there were certain nominal paradigms that were often referred to, and these combinations developed into monolexical items; for instance, for persons (*ii*, *kui*, *cei*, *isalam*, *kusalam*, *cesalam*), for places (*yeki*, *keki*, *ceki*), for things (*ike*, *kuke*, *ceke*), etc.

One peculiarity is that the distal demonstrative *ce* later became the humiliating first-person pronoun. This seems to have been motivated by the desire to humble

7. The historical form *tye* disappeared through palatalization, a process widely attested in Korean. The older form became completely replaced by *ce* by around 1910 (Kim 1981: 7).

the speaker himself or herself by placing them far away from the addressee, an instance of linguistic metaphORIZATION of the fact that a lowly person respectfully stays away from his or her superior in physical terms.

As in Japanese, indefinite and interrogative pronouns and pronominal adjectives are related to the paradigm of demonstratives. They start with *e-* instead of *i-*, *ku-*, or *ce-*. A few examples are provided in (13). The contemporary forms are given in square brackets.

- (13) a. 'which': *enuy, enu, enuy, enul, esma* [enu]
 b. 'where': *etuy, etumey, etulesye* [eti]
 c. 'how': *estyey, estye, esti* [ecci, ettehkey]

Since Korean does not have a paradigmatically stable pronominal system, the demonstratives play an important role in creating referring expressions. The most widely used form of pronominal reference combines the demonstrative and a regular noun to derive third-person referring expressions denoting variable relative location in the discourse situation, e.g. *i-namca* (this man), *ku-namca* (that man), *ce-namca* (that man).⁸ The demonstratives and the constructions involving demonstratives also developed into discourse markers for diverse functions.

5.3 Short comparison

The phonological similarities between the two central deictic roots of Japanese, *ko* and *so* on the one hand and Korean *ku* and *ce* on the other hand are conspicuous. Furthermore, it is quite likely that there was a proximal *i in Proto-Japanese corresponding to Korean *i*, and the Old Japanese interrogative *i* may be a raising from *e, closely corresponding to Korean *e*. This is at least what has been claimed by Frellesvig and Whitman (2008: 27–29) and Frellesvig (2010: 142–143). They reconstruct the parallel demonstrative systems of the two languages as follows:

- | | | | | |
|------|----------------|----------|-----------|---------------|
| (14) | proximal | mesial | distal | interrogative |
| | Middle Korean | <i>i</i> | <i>ku</i> | <i>tye e</i> |
| | Proto-Japanese | *i | *kɨ | *sɨ *e |

Despite their formal similarity, their apparent common origin, and the fact that both Korean and Japanese have maintained a three-item set of demonstratives, the concrete conditions for their usage are not identical in Modern Korean and Japanese.

8. This type of phrasal combination is so productive that people normally write the demonstrative and the noun without an inter-lexical space (as if the demonstratives were prefixes), and even some of them became standardized by the orthographic rules.

6. Summary

This paper has dealt with the grammaticalization of spatial expressions in Korean and Japanese. Space is generally taken to be one of the most basic domains of language and cognition, serving the expression of more abstract domains. We have focused on three potentially space-related domains in the two languages, namely (i) case and other particles, (ii) adposition equivalents (relational nouns, postpositional verbs), and (iii) demonstratives. In those domains where space is expressed, the sources are often body parts (especially relational nouns), verbs of motion (postpositional verbs), and general nouns for location (case particles, relational nouns).

With respect to the areal, and potentially genetic relationship between Korean and Japanese, the following observations can be made: (i) the similarities of grammaticalizations in terms of structure and patterns of expression are striking; (ii) in contrast, the overlap in lexical sources of the concrete expressions is limited. However (iii), those forms which do seem to have the same sources belong to the most basic and fundamental expressions (nominative case; a fair number of relational nouns, the demonstratives). This picture is perhaps not untypical of Japanese and Korean grammar in general, and fits in with a scenario in which the two languages split (possibly genetically but at least areally) very long ago, probably more than just one millennium. The fact that the majority of lexical sources is not shared can be readily explained by the fact that most of the patterns discussed here (especially the relational nouns and postpositional verbs, but not the demonstratives) are relatively recent developments, and there was no protracted intensive language contact between Korean and Japanese during historical times. Furthermore, the fact that even in a core area of grammar such as case marking and the expression of spatial relations the large majority of structures are recent historical developments shows the high degree of grammatical renewal in both languages over a limited period of time. If this high rate of turnover is projected back another millennium, one can only imagine that the common ancestor, or the two proto-languages in contact, were quite different from what we know historically. Lastly, in the domain of space discussed in this paper, Japanese and Korean share the same influence from Sinitic, with the same patterns of borrowing, largely based on the same lexical sources. Thus, during historical times, the influence of Chinese on both languages was clearly much, much stronger than the influence of the two languages on each other.

Abbreviations

Morpheme classes:

A	adjective	q-	prefix
N	noun	V	verb
-n	suffix noun	V _b	verb base
PV	postpositional verb	Vn	verbal noun
-p	particle		

Glosses:

3	third person	GER	gerund
ABL	ablative	HON	honorific
ACC	accusative	INS	instrumental
ADVZ	adverbializer	NEG	negation
ALL	allative	NF	non-finite
CONN	connective	NPI	negative polarity item
DAT	dative	PRO	pronoun
DEM	demonstrative	PROX	proximal
ESS	essive	TOP	topic
GEN	genitive		

Languages:

J	Japanese	pJ	Proto-Japanese
K	Korean	pK	Proto-Korean
MK	Middle Korean	pTg	Proto-Tungusic
OJ	Old Japanese		

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