On the Felicity of *V-kake-no N* Phrases

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Abstract

This paper investigates what determines the felicity of *V-kake-no N* phrases (e.g., *yomi-kake-no hon* 'the book, read halfway'), or a deverbal nominal construction (DNC), in Japanese. To date, accounts of the DNC are mostly semantic (and pragmatic). While this paper builds on insights from previous works (e.g. Kishimoto 1996; Takami & Kuno 2006; Tsujimura & Iida 1999), it refines their observations by considering both syntactic and semantic characteristics of the DNC. This paper points out that the DNC instantiates the same types of modifier-head relations as the noun modifying construction (Matsumoto 1997), which fall into two types, gapped and gapless. It is argued that these two types are subject to different constraints: (i) a noun that belongs to the same clause as the verb is qualified to head the gapped DNC but is further subject to a semantic/ pragmatic constraint; (ii) in the gapless type, the modifier and the head noun must enter into a relation in which the former specifies the semantic content of the latter.

1. Introduction

This paper is concerned with the syntax and semantics of a deverbal nominal construction with *-kake* in Japanese (DNC), exemplified in (1).⁽¹⁾

- (1) a. toke-kake-no koori melt(V1)-KAKE(V2)-GEN ice 'the ice (which is) starting to melt'
 - b. *yomi-kake-no syoosetu* read-KAKE-GEN novel 'the novel (which I am) starting to read'

The DNC is an adnominal phrase, which consists of a head noun and a modifier linked by *no* 'genitive'. The modifier contains a deverbal noun derived from a

compound verb that consists of a base verb (V1) (e.g. *toke*- 'melt' (1a)) and an aspectual phase verb (V2) -*kake* 'suspend'.

The controversy over DNC has centered on what determines the felicity of the phrase (Kishimoto 1996, 2000, Kuno & Takami 2003, Takami & Kuno 2006, Toratani 1998, 2008 Tsujimura & Iida 1999). Most accounts are semantic (and pragmatic). Among them, Takami & Kuno (2006) offer the most elaborate definition:

(2) 「Vかけの N」構文は、「Vが表わす動作、出来事の成立に向かっての過程、前兆が始まっているが、何らかの要因によって、その動作、出来事の成立が、物理的、あるいは心理的にサスペンドされている N」を意味する。(p. 100).

V-kake-no N means "N, (such that) the action, the process, or an indication of the establishment of the event expressed by the verb has started, but the action or the establishment of the event is physically or psychologically suspended because of some factor."⁽³⁾

This paper accepts the meaning of *-kake* expressed in (2); in short, *V-kake* conveys a suspended condition of an entity. However, (2) calls for refinement in two respects. First, it is unclear what kind of relation the N bears with respect to the V due to the fact that the relevant part of the description is expressed using an adnominal phrase. Second, it is unclear what type of noun the "N" refers to. Given that a suspended condition will not be recognized unless it is a physical entity, (2) seems to imply that the DNC must be headed by a noun denoting a physical entity. Stated differently, the following questions remain unanswered:

- (3) a. Can any N be the head noun in terms of its relation with the V?
 - b. Does the N always refer to a physical entity?

In light of these questions, this paper attempts to revise (2).

The first task is to identify all the subtypes of the DNC. To this end, I gathered 400 tokens of *V-kake-no N* phrases (see Section 2). Observation of the

data shows that the structural characteristics of the DNC parallel those of the noun-modifying construction (NMC), an adnominal phrase with a finite modifying clause such as *kinoo yon-da hon* 'the book (I) read yesterday'. Given these parallel characteristics, this paper divides the DNC into two groups: *gapped* and *gapless*.⁽⁴⁾ It hypothesizes that the gapped type is preconditioned by a syntactic constraint that determines from which domain the noun can be extracted (cf. (20)) before a semantic condition (cf. (22)) applies, while the gapless type must observe a semantic condition to form an appositive phrase (cf. (28)). The answer to the questions posed in (3) is argued to be *no* for both.

The paper is organized as follows. Section 2 discusses the data. Section 3 establishes that the DNC comprises both gapped and gapless types. Section 4 discusses the felicity of the DNC instances. Section 5 constitutes a conclusion.

Before proceeding, a word is in order regarding the English translations used in this paper. Since English has no single word equivalent to -kake, it will be translated using different phrasing: starting to, halfway, half-Xed, about to and almost. This paper, however, assumes that -kake is monosemous, following Takami & Kuno (2006) (cf. Toratani 2007).

2. Data

To examine what types of nouns can head the DNC, 49 commonly used verbs were selected (e.g., *tabe-* 'eat', *aruk-* 'walk') and then, using an internet search engine, 400 tokens of the *V-kake-no N* phrases that combined with those verbs were gathered. The results illustrate that the DNC comprises two types: gapped (e.g., *tabe-kake-no pan* 'bread, eaten halfway') and gapless (e.g., *tabe-kake-no mama* 'remaining condition, eaten halfway') (see Section 3 for their definitions). The distribution is given below:

Table 1: Distribution of *V-kake-no N* phrases

	Gapped	Gapless	Total
No. of tokens	274/400=68.5%	126/400=31.5%	400/400=100%

Table 1 shows that the gapped type occurred more frequently than the gapless type. Considering that the examples hitherto discussed in the literature are mostly gapped, it is rather unexpected that the gapless type occupied more than a quarter of the total number of tokens. This rate suggests that the gapless type deserves closer attention.

With respect to the gapped type, the head nouns were analyzed according to macrorole types, following previous characterization (Kishimoto 1996). Macroroles are generalized semantic roles (Van Valin & LaPolla 1997) comprising an actor (a performer of an action) and an undergoer (an entity that undergoes a change of state). Non-macroroles consist of a non-macrorole argument (often *ni*-marked) and an adjunct (an element not required by the verb) (see (19a'–19d') for examples). The distribution is given in Table 2:

Table 2: Types of head nouns

Macrorole		Non-Macrorole		Total
Undergoer	Actor	Argument	Adjunct	
187/274 =68.2%	62/274 =22.6%	21/274 =7.7%	4/274 =1.5%	274/274 =100%

Table 2 shows that *V-kake-no N* phrases headed by an undergoer (68.3%) occurred more frequently than those headed by an actor (22.6%) or a non-macrorole (7.7+1.5=9.2%), implying that the DNC is most likely used to portray the condition of an undergoer. This is consistent with what has been previously noted by other researchers: the referent of the head noun frequently corresponds to an undergoer (Kishimoto 1996) but can be an "agent" (in macrorole terms, "actor") or an adjunct (Tsujimura & Iida 1999). This topic is further pursued in Section 4.1. A symbol such as [D5] (representing "data number 5") will be used hereafter to differentiate attested from constructed examples.

3. The modifier-head relation⁽⁶⁾

This section shows that the DNC is a subset of adnominal phrases by observing that the DNC instantiates the same subtypes of modifier-head relations as the NMC, namely gapped and gapless.

3.1 Gapped type

The gapped type NMC refers to adnominal phrases in which an "inner relationship" (Teramura 1969, 1992) holds between the modifier and the head. In more familiar terms, the gapped type corresponds to relative clauses. According to Givón, "[a] relative codes a state or event one of whose participants is *coreferent* with the head noun modified by the clause" (2001: 176). For example, in (4a), a semantic argument of the verb *yak*- 'grill' in the modifying clause (the *griller*) is construed as co-referent with the head noun *otoko* 'man'. Given this relation, (4a) naturally can have a sentence counterpart (4b) that expresses the intended proposition of the modifying clause, realizing the gapped argument *otoko* 'man'.

- (4) a. *hitori-de* sanma-o yak-u otoko one.person-by saury-ACC grill-NPAST man 'the man who grills the saury alone' (Teramura 1969: 64)
 - b. Otoko-ga hitori-de sanma-o yak-u.
 man-NOM one.person-by saury-ACC grill-NPAST
 'The man grills the saury alone.' (ibid.)

The DNC can contain the gapped type as shown below:

- (5) a. Zassi-o yon-da. magazine-ACC read-PAST 'I read the magazine.'
 - b. yomi-kake-no zassi
 read-KAKE-GEN magazine
 'the magazine, read halfway' (Kishimoto 1996: 254)

The modifier in (5b) can be argued to contain a gap co-referential with the head noun, as the modifier can have an unmodified sentence counterpart (5a), which contains the noun *zassi* 'magazine' as its argument.

3.2 Gapless

3.2.1 Subtypes

Teramura (1969, 1992) argues that some adnominal phrases correspond to instances of "outer relationships" where the referent of the head noun is not included in (i.e., outside of) the proposition of the modifier. These phrases are classed into two main types: (i) noun phrases with a "content-theme" relation, which, in turn, comprise (i-a) the modifier expressing the object of conception ("noun complement type") and (i-b) the modifier expressing the object of perception ("perception type"); (ii) noun phrases with a relative relation. The first is discussed in the subsections below, with the addition of a subtype called "formal nouns"; the second is discussed in Section 4.2.

3.2.2 Noun complement type

In the noun complement type NMC, the modifying clause is taken as the complement of the head noun, as in *the rumor that the enemy destroyed the city*, where (*that*) *the enemy destroyed the city* is taken to specify the content of *the rumor*. (6) provides two instances of NMC:

- (6) a. sore-wa mazui to i-u iken it-TOP no.good COMP say-NPAST opinion 'the opinion which states that it is no good'
 - b. Kawabata-si-ga Nooberu-syoo-o uke-ta
 Kawabata-Mr.-NOM Nobel-Prize-ACC receive-PAST
 to i-u sirase
 COMP say-NPAST news
 'the news which states that Mr. Kawabata received the Nobel Prize'

In the noun complement type, head nouns typically pertain to cognitive activities, hearsay, or speech, such as *iken* 'opinion' (6a) or *sirase* 'news' (6b). As in the

rumor example, the modifiers specify the content of the head noun: that 'the topic is no good' is the content of the 'opinion', and Mr. Kawabata's receipt of the Nobel Prize is the content of the 'news'.

The DNC includes a noun-complement type. In the following examples, ⁽⁷⁾ the head nouns are hearsay-related (*hanasi* 'story', *nyuusu* 'news'), and the modifier specifies the content of the delivered information: the speaker has half-finished knitting something (7a) and the best-before date is approaching (7b).

(7) a. (buranketto ...) ami-kake-no hanasi-ni naru-to [D1] blanket knit-KAKE-GEN story-DAT become-when '(blanket ...) when it comes to the story about (my) knitting halfway'

b. syoomikigen-ga kire-kake-no
best.before.date-period-NOM expire-KAKE-GEN
nyuusu-o wadai-ni-si-te-mo... [D2]
news-ACC topic-DAT-do-L-P
'(there is no point of) bringing up the news (that) the best-before date is about to expire'

Their gapless status can be demonstrated by the inability of the proposition of the modifier to include the referent of the head noun.

- (8) a.* Hanasi-ga/o ami-kake-ta. story-NOM/ACC knit-KAKE-PAST 'The story started to knit/I started knitting the story.'
 - b.* Nyuusu-de syoomikigen-ga kire-kake-ta.
 news-by best.before.date-NOM expire-KAKE-PAST
 'In the news, the best-before date was about to expire.'

Examples (8a-b) intend to provide the sentence counterparts of (7a-b). Irrespective of the case marking, the referent of the head noun (*hanasi* 'story', *nyuusu* 'news') cannot be realized as participant of the event denoted by the verb.

3.2.3 Perception type

The perception type is "characterized by a quality associated with some kind of physical perception, such as sight, hearing, smelling, etc." (Teramura 1969: 70).

Examples of head nouns are: *sugata* 'posture', *katati* 'shape', *iro* 'color', *oto* 'sound', *nioi* 'smell', *azi* 'taste', and *kansyoku* 'feel' (Teramura 1992: 285).

Three NMC examples appear below.

- (9) a. sanma-o yai-te-i-ru nioi saury-ACC grill-L-exist-NPAST smell 'the smell of (someone) grilling the saury' (Teramura 1969: 65)
 - b. *yama-de ki-no-eda-ga hazike-ru oto* mountain-at tree-GEN-branch-NOM snap-NPAST sound 'the sound of a tree branch snapping in the mountain' (ibid, 71)
 - c. *Makino-san-no nigawarai-su-ru kao*Makino-Mr.-GEN wry-do-NPAST face

 'the face of Mr. Makino giving a wry grin' (Teramura 1992: 286)

Here, the modifier specifies the source of smell in (9a) and sound in (9b), whereas in (9c) the modifier provides information on the facial expression.

That the head noun cannot be part of the proposition of the modifier is evidenced in the following example:

This sentence, the intended sentence counterpart of the modifier in (9a), is nonsensical.

While previous studies of the DNC include a few examples of the perception type, they do not identify the head noun type. Kishimoto (1996: 254, n5) is the first to discuss this (see also Takami & Kuno 2006: 93), but only briefly footnotes that the head noun bears an "appositive relation" with the modifier. (8)

(11) warai-kake-no hyoozyoo laugh-KAKE-GEN fasial.expression 'the facial expression of almost laughing' (Kishimoto 1996: 254n5)

The term "appositive relation" is not defined in Kishimoto. (9) I interpret that it corresponds to a structural relation instantiated in English appositive genitive instances (e.g., the city of Tokyo, the month of March) where one noun is placed

in proximity to another, but *of* intervenes. Furthermore, I interpret that the term captures a specific-general relationship in which the genitive-marked element (*Tokyo*, *March*) functions to specify the content of the head noun (*city*, *month*). In the case of (11), the head noun *hyoozyoo* 'facial expression' covers a general meaning and the genitive-marked sequence *warai-kake* 'almost laughing' specifies which emotion is reflected on the person's face (see Section 4.2 for more on this topic).

It turns out that the DNC also contains a perception type of meaning with a wide range of head nouns as shown below:

(12)	a.	koware-kake-no oto	'sound (of it) almost breaking'	[D3]
	b.	kusari-kake-no nioi	'smell (of it) almost rotting'	[D4]
	c.	warai-kake-no koe	'voice (of her) almost laughing'	[D5]
	d.	aruki-kake-no poozu	'pose (of it) about to walk'	[D6]
	e.	aruki-kake-no sugata	'appearance (of her) about to walk'	[D7]
	f.	warai-kake-no kutimoto	'mouth area (of her) almost laughing'	[D8]
	g.	warai-kake-no henna kao	'strange face (of her) almost	[D9]
			laughing'	

The head nouns in these examples convey a meaning pertaining to perception (*oto* 'sound', *koe* 'voice', *nioi* 'smell') and body-part-related or body-image-related expressions (*hyoozyoo* 'facial expression', *poozu* 'pose').

The examples below illustrate that the phrases in (12) are gapless:

(13)	a.	*Oto-ga koware-kake-ta.	'The sound started to break.'
	b.	*Nioi-ga kusari-kake-ta.	'The smell started to rot.'
	c.	*Koe-ga warai-kake-ta.	'The voice started to laugh.'
	d.	*Poozu-ga aruki-kake-ta.	'The pose started to walk.'
	e.	*Sugata-ga aruki-kake-ta.	'The appearance started to walk.'
	f.	*Kutimoto-ga warai-kake-ta.	'The mouth area started to laugh.'
	g.	*Henna kao-ga warai-kake-ta.	'The strange face started to laugh.'

In none of the examples can the head noun be realized as an argument belonging to an event denoted by the modifying clause. For example, *oto* 'sound' (13a) cannot be the argument of *koware-kake* 'break-KAKE' even if the sound is emitted as the object breaks.

3.2.4 Formal noun

There is another subset of DNC whose existence has escaped the attention of previous studies, namely the DNC with a *formal noun* head.

Teramura (1992) subsumes adnominal phrases that take *keesiki meesi* 'formal nouns' as their heads into the category of "outer relationships" (i.e. gapless NMCs). Formal nouns refer to an element that retains some formal properties of a noun but has lost its lexical sense as a noun either mildly or completely (Teramura 1984: 261). These are largely grammaticalized, taking on new functions. Examples include: *toki* 'time', *tokoro* 'place', *wake* 'reason', *huri* 'pretence', and *mama* 'remain as is'.

A sentence example is given in (14a).

- (14) a. *Ie-de ne-te-i-ru-toki Bill-ga tazune-te-ki-ta*. house-at lie-L-exist-NPAST-when Bill-NOM visit-L-come-PAST 'When I was lying in bed at home, Bill came to call on me.'

 (Kuno 1973: 189)
 - b.* Toki-ga/no/o ie-de ne-te-i-ru. time-NOM/GEN/ACC house-at lie-L-exist-NPAST 'Time is lying at home.'

In this example, *toki* '(lit.) time' expresses a temporal concept. Structurally, the unit containing it occurs subordinately to the matrix clause. As the ungrammaticality of (14b) shows, *toki* cannot be an argument of *ne*- 'lie' irrespective of the case marking.

The DNC also takes a formal noun as its head, as shown below.

- (15) a. baito-ga owari-kake-no toki [D10] part.time.job-NOM finish-KAKE-GEN time 'time [when] (my) part time job (was) about to finish'
 - b. *ii-kake-no tokoro-de* [D11] say-KAKE-GEN place-at '(just as I was) about to say...'

- c. *kao-wa tyotto warai-kake-no yoo* [D12] face-TOP a little laugh-KAKE-GEN seem '(lit.) (It) seems as if her face is about to laugh a little'
- d. *tyoosyoku-wa tabe-kake-no mama* [D13] breakfast-TOP eat-KAKE-GEN condition 'the (remaining) condition of the breakfast half-eaten'

The formal nouns found in these DNC instances include a spatio-temporal related expression (*toki* 'time', *tokoro* 'place'), an evidential marker (*yoo* 'atmosphere that looks like'), and a word that expresses an ongoing condition (*mama* 'condition').

In short, like the subtypes of the NMC, DNC subtypes can be gapped or gapless. Further, the gapless DNC can comprise a noun complement, a perception, or a formal noun type.

4. Felicity of the DNC

Having established the parallelism of modifier-head relations between the NMC and DNC, this paper now examines the convertibility of a NMC into a DNC in order to consider factors that affect the DNC's felicity.

An examination of the NMC instances presented in Matsumoto (1997) reveals that there are two main groups of NMC instances that cannot undergo a conversion into the DNC. One is a subset of the gapped type, and the other is a subset of the gapless type.

4.1 Infelicity with the gapped type

One group of gapped NMCs consistently fails to convert into V-kake-no N phrases; it corresponds to what Teramura calls tanraku "abridged" (1992: 256). In this type of NMC, as the term "abridged" suggests, only part of the scene is linguistically realized, while the rest remains implicit. Let us call the part with the corresponding linguistic forms a "denoted event", and the entire scene that includes the implicit part an "evoked scene". $^{(10)}$ (16) shows two NMC examples

of the former, whereas (17) shows their evoked scene counterparts, phrased explicitly.

- (16) a. yase-ru onsen
 become.slim-NPAST hot.spring
 'the hot spring (by soaking in which) () becomes slim'
 (Matsumoto 1997: 107)
 - b. atama-ga yoku-nar-u kusuri
 head-NOM good-become-NPAST medicine
 'the medicine (because of which) () head gets better'
 (ibid, 106)
- (17) a. [[sono-onsen-ni hair-u-to] [yase-ru]] that-hot.spring-DAT enter-NPAST-if become.slim-NPAST '(If you) enter the hot spring, (you will) become slim.'
 - b. [[sono-kusuri-o nom-eba] [atama-ga yoku-nar-u]] that-medicine-ACC take-if head-NOM well-become-NPAST (lit.) 'If you take the medicine, your head gets better.'

To understand (16), one must access one's knowledge of the world, stated along the lines of (17). For example, a hot spring is a place where people soak, and as a result of soaking in it, one may lose weight. Note that the sentences in (17) each contain two syntactic units as indicated by the brackets: one with the main verb (*yase*- 'become slim'; *yoku nar*- 'become well'), and the other with a linked unit containing a distinct verb (*hair*- 'enter'; *nom*- 'take').

Critically, the nouns serving as the head noun in (16) (*onsen* 'hot spring'; *kusuri* 'medicine') are an argument of the verb in the linked unit (*hair*- 'enter'; *nom*- 'take'), not of the main verb in the rendition of the evoked scene (17). The NMC examples which have such crossed patterns cannot be converted into *V-kake-no* phrases:

(18) a.* yase-kake-no onsen become.slim-KAKE-GEN hot.spring 'the hot spring that is about to lose weight'

b.* atama-ga yoku-nari-kake-no kusuri head-NOM good-become- KAKE-GEN medicine 'the medicine whose head is starting to get better'

To understand why, we must take a closer look at which nouns can head the gapped DNC.

As previewed in Table 2 (Section 2), the candidates for the head noun are either the verb's argument or an adjunct which provides extra information about the event denoted by the verb. In other words, they are all related to the event denoted by the base verb. If we assume that the modifier of the DNC has a sentence counterpart, the base verb and the head noun will be contained in a single clause sentence where the verb will be the only argument-contributing source:⁽¹¹⁾ (19a-19d) provide examples of such sentences and (19a'-19d') are their DNC counterparts.

(19)	a. Zassi-o yomi-kake-teiru. 'He is starting to read the magazine.'		,	The head noun type
	a'. →	yomi-kake-no zassi 'the magazine, read halfway'	[D14]	Macroroles: [Undergoer]
	b.	Basu-ga hasiri-kake-teiru. 'The bus is almost running.'		
	b'. →	hasiri-kake-no basu 'the bus, almost running'	[D15]	[Actor]
	c.	Nooto-ni kaki-kake-teiru. 'He has started writing in the notebo		
	c'. →	kaki-kake-no nooto 'the notebook, half-written'	[D16]	[Non-macrorole argument]
	d.	Teeburu-de gohan-o tabe-kake-teiru 'We are starting to eat at the table.'		
	d'. →	tabe-kake-no teeburu 'the table (where we) ate halfway'	[D17]	[Adjunct]

(19) shows that a DNC can be constructed from a noun and a verb that belong to the same clause.

This leads to the formulation of a working hypothesis (20):

(20) Syntactic condition for the gapped DNC:

If a verb has a clause-mate noun (phrase), which can be an argument or a non-argument of the verb, the verb and the noun (phrase) can potentially enter into a gapped DNC, where a clause is a unit comprising a verb (the sole argument contributor) and its clause-mate nouns.

Returning to (18), it can be seen that the *V-kake-no* phrases violate (20). The head noun is not a clause-mate of the base verb, which renders the phrases infelicitous. For instance, *onsen* 'hot spring' is an argument of *hair-* 'enter', not of *yase* 'become slim' (cf. (17a)). (12)

The following example also violates (20): (21a) shows an instance of the NMC, (21b) provides a rendition of its evoked scene, and (21c), the DNC counterpart of (21a).

- (21) a. honyaku-si-ta kane translation-do-PAST money 'the money (which resulted after) () translated (something)' (Matsumoto, 1997: 116)
 - b. [[honyaku-si-te] [kane-o morat-ta]] translation-do-L money-ACC receive-PAST 'I obtained the money from translating (it).'
 - c.* honyaku-si-kake-no kane translation-do-KAKE-GEN money 'the money, starting to translate'

The head noun in (21a), *kane* 'money', is an argument of the verb *moraw*'receive' as indicated by the rendition of the evoked scene (21b). The verb in
(21a), *honyaku-su* 'translate', belongs to a unit that expresses a reason in the
evoked scene, a different unit from the one that contains the verb *moraw*'receive'. From this crossed combination (*kane* 'money' is not a clause-mate of

the base verb *honyaku-su* 'translate'), a DNC cannot be formed as shown by the infelicity of (21c).

The condition in (20) is a prerequisite syntactic constraint before a semantic/pragmatic condition can apply. Having delimited which N (with respect to the base verb) is qualified to enter into the DNC, (2) can now be elaborated. For the gapped DNC, the following semantic condition can be proposed, while maintaining the definition of *-kake* stated in (2), namely "the action, the process, or an indication of the establishment of the event expressed by the verb has started, but the action or the establishment of the event is physically or psychologically suspended because of some factor":

(22) <u>Semantic condition for the gapped DNC</u>

The referent of the N must display evidence based on which the observer of the scene can construe that it is at the suspended condition stated in (2).

There are instances where the nouns qualify to enter into the gapped type according to (20) but are ruled out for a semantic reason given (22).

- (23) a. *Haburasi-de ha-o migaki-kake-ta*. 'He started to brush teeth using his toothbrush.'
 - a'. → *migaki-kake-no haburasi* [D18] 'toothbrush, (with which his teeth are) brushed halfway'
 - b. *Kanazuti-de kurumi-o wari-kake-ta*. 'He started to crack a walnut with a hammer.'
 - b'.→?? kurumi-o wari-kake-no kanazuti

 '(intended) hammer, (with which he is) almost cracking
 the walnut'

Both (23a) and (23b) show that the head nouns of the DNC counterparts in (23a') and (23b') (haburasi 'toothbrush', kanazuti 'hammer'), are adjuncts referring to an instrument employed in the activity. Although both are a clause-mate of the verb, (23a') is felicitous while (23b') is not, or at least the former is more acceptable than the latter. The reason for this contrast is that the former satisfies

(22), but the latter does not: the condition of one's brushing activity being suspended is observable from the toothbrush with the toothpaste in use, whereas the condition of someone's cracking-a-walnut activity being suspended is not observable from the hammer.

The following example shows a similar point. In this case, the head noun is co-referenced with an adjunct referring to a place.

- (24) a. *tabe-kake-no teeburu* [D17] 'the table, (where we) ate halfway.'
 - b. *keganin-ga sini-kake-no byooin* 'the hospital at which the injured person is about to die.' (Tsujimura & Iida 1999: 121)

(24a) is felicitous; the fact that someone has engaged in an eating activity can be seen from the dining table with half-eaten food. (13) (24b) comes from Tsujimura & Iida (1999) who present it as felicitous. In an out-of-the-blue context, however, the phrase is infelicitous: the outer look of a hospital cannot reveal that an injured person inside is almost dying. On the other hand, the acceptability seems to improve if a special context is provided where the speaker knows that the hospital is full of injured people who are about to die. (14) This suggests that the observer's accessibility to the "evidence" regarding the referent of the head noun affects the felicity of the gapped DNC. In the case of (24a), the object itself presents physical evidence. In the case of (24b), the information regarding the nominal referent is "pragmatically presupposed" (Lambrecht 1994: 52). That is, it is assumed that both the hearer and the speaker know about the propositional content. Future discourse-based study will offer further insight into which type of information is more frequently employed when speakers use a gapped type *V-kake-no N* phrase.

4.2 Infelicity with the gapless type

The DNC consistently fails to portray another type of NMC instance: a gapless type in which the modifier and the head noun enter into a "relative relation" (Teramura 1969), exemplified in (25).

- (25) a. Fumiko-ga suwat-ta usiro ...

 Fumiko-NOM sit-PAST behind

 'behind (where) Fumiko sat ...' (Matsumoto, 1997: 155)
 - b. *Yonago-ni* tomat-ta asa ...
 Yonago-LOC stay.overnight morning
 'the morning (after) (I) stayed at Yonago ...' (ibid., 157)

The important characteristic of (25) is that the head noun enters into a particular relation with a spatial or temporal anchoring point implied by the proposition of the modifier, but it is not directly co-referenced with any of the arguments in the sentence counterpart of the modifier. In (25a), the assertion *Fumiko-ga suwat-ta* 'Fumiko sat down' implies a designated location where Fumiko sat, and this location serves as a reference point to interpret the word *ushiro* 'behind'. In (25b), the fact that the speaker stayed overnight in *Yonago* implies a particular night of a particular day (i.e., temporal reference point), on the basis of which the meaning of the head noun *asa* 'morning' can be construed, namely, the following morning.

The DNC counterparts of (25), given in (26), are infelicitous.

- (26) a.* Fumiko-ga suwari-kake-no usiro Fumiko-NOM sit-KAKE-GEN behind 'behind (the area where) Fumiko (is) about to sit'
 - b.* Yonago-ni tomari-kake-no asa ...
 Yonago-LOC stay.overnight-KAKE-GEN morning
 'the morning (after) (I) stayed at Yonago ...'

To account for the infelicity of (26), I use the term "appositive" employed in Kishimoto (1996: 254n5). As stated in Section 3.2, I interpret that it refers to a relation in which the modifier specifies the semantic content of the head noun. The rationale for this is that the sentence without the modifier is uninterpretable. This point can be seen in all three subtypes of the gapless DNC.

- (27) [Noun a. Amikake-no hanasi-ni naru-to mimi-ga itai.
 Complement 'It makes my ears burn when it comes to the story about knitting something halfway'
 - a'. * Hanasi-ni naru-to mimi-ga itai.

[Perception Type]

b. *Kusari-kake-no nioi-ga si-ta*. 'It smelled like something started rotting.'

b'. Nioi-ga si-ta.

*

[Formal Noun Type]

c. *Ii-kake-no tokoro-de denwa-ga nat-ta*. 'Just as I was about to say (it), the telephone rang.'

c'. * *Tokoro-de denwa-ga nat-ta*. (Intended 'As..., the telephone rang.')

The examples (27a-27c) give the full sentences, and the examples (27a'-27c') show that their modifier-deprived versions are unacceptable; each phrase requires the specifier component to be interpretable.

In light of this, the following semantic condition is proposed.

(28) <u>Semantic condition for the gapless DNC</u>:

The modifier and the head noun enter into a relation such that the former can be construed as supplying information that specifies the semantic content of the latter, where the modifier expresses the suspended condition stated in (2).

Given (28), the infelicity of (26) can be explained. *Usiro* 'behind' requires a reference object with respect to which the spatial relation can be construed, but the word *usiro* 'behind' *per se* requires no specification. Similarly, the term *asa* 'morning' requires the modifier to specify a temporal anchoring point. That is, the head noun and the modifier in (26) do not enter into a relation stated in (28). Consequently, the phrases in (26) cannot be construed felicitously.

5. Concluding remarks

This paper examines the syntactic and semantic characteristics of the DNC. Previous studies have detailed the semantic and pragmatic characteristics of the DNC, but when we compare the formal characteristics of the DNC with those of the NMC, we unearth hitherto unnoticed properties. For example, the modifiers of the DNC can be gapped or gapless; the head nouns of the DNC can be abstract nouns. Despite the parallel structural characteristics, however, the DNC and NMC

differ in terms of the relation between the modifier and the head noun. This is much more semantically constrained in the DNC, while the construal of NMC heavily depends on pragmatics (Matsumoto 1997). Of course, which state can be construed as suspended (the state characterizable by *-kake*), must be sanctioned by our knowledge of the world, as argued in Takami & Kuno (2006).

Notes

- * Part of the content of this paper was presented at the 2007 International Conference on Role and Reference Grammar, Universidad Nacional Autónoma de México, México City. I am grateful to the audience for their questions and comments. I thank the two anonymous reviewers of the CAJLE journal. Their valuable comments significantly improved the quality of this paper. Any remaining errors and shortcomings are, of course, my own.
- 1. The following abbreviations are used in this paper: ACC=accusative, COMP=complementizer, COP=copula, DAT=dative, DNC=deverbal nominal construction, GEN=genitive, L=linker, LOC=locative, NMC=noun modifying construction, NOM=nominative, NPAST=non-past, and TOP=topic.
- 2. Some studies have noted that the DNC exhibits syntactic characteristics that resemble those of relative clauses (Tsujimura & Iida 1999: 118, Kishimoto 2000: 102-103, Toratani 2008).
- 3. The translation is my own. The phrase "such that" is employed to capture the loose relation between the head noun *N* and the modifier in the original.
- 4. The English term *gapless* is adopted from Cha (1999).
- 5. For each verb, the first 10 (tokens) of the list that appeared on the screen were collected. When the result did not show more than 10 entries, a different verb was selected. The data were compiled by accessing websites between May and June 2007.
- 6. Due to space limitations, the other common characteristics of the gapped NMC and DNC are omitted from the discussion. This includes restrictive vs. non-restrictive modification (cf. Kuno 1973: 235, Teramura 1984: 206) as well as adjectival vs. clausal modification (Toratani 2008).
- 7. As isolated *V-kake-no N* phrases, the examples may sound unnatural. If a context is given, the acceptability improves, suggesting that the unacceptability has a pragmatic basis. Accordingly, I consider that the DNC can occur in the noun complement type structure.
- 8. The actual wording reads: "[i]f the head nominal is construed as an appositive relation with the predicate, the construction is sometimes acceptable." (Kishimoto 1996: 254n5)
- 9. According to Trask (1993: 19), "appositive" refers to "[a] noun phrase which immediately follows another noun phrase of identical reference, the whole sequence behaving like a single noun phrase with respect to the rest of the sentence" as in *I visited Tokyo*, the capital city of Japan. The sense of "appositive" used in Kishimoto (1996) differs from Trask's definition. In Trask's sense, the two phrases stand in juxtaposition without relying on each other. Furthermore, each noun can be the

- object of the verb: *I visited Tokyo/I visited the capital city of Japan* but the two elements in (11) cannot: *Warai-kake-o mise-ta 'She showed half-laughing' / *Hyoozyoo o mise-ta 'She showed expression'.
- 10. I owe the terms "denoted" and "evoked" and the idea underlying the distinction to one of the reviewers.
- 11. The "clause" here excludes a position called "pre-core slot" in Role and Reference Grammar terms.
- 12. One of the reviewers asked how this paper would treat sentences with a topic such as *Kono onsen-wa yaseru*. It must be first determined if the topicalized element is a clause-mate of the verb. If so, it qualifies to enter into the gapped DNC.
- 13. This involves a metonymical construal: by "table", it is meant "the table with dishes and half-eaten food."
- 14. I agree with a reviewer who pointed out that the definiteness of *keganin* 'injured person' affects the acceptability of the phrase.

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