

Nominalization and Its Role in the Formation of Noun Phrase in Japanese

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Abstract

*This study sheds light on the yields of nominalization and their role in the formation of Noun Phrases in Japanese by following a methodology in an envisaged study framework to be called nominalization framework, which considers nominalization to be a morphosyntactic process. The nominalization as a process operates on the linguistic constituent to transform it into a derivative/transformed constituent. It brings forth derivative nouns by operating on the words other than nouns involving the process of derivation as well as action nominal constituent and nominal clause respectively involving the simultaneous process of desententialization and transformation, and the process of reduction of clausal properties from a finite clause. It fundamentally differs from the prevalent nominalizer approach, which derives Bound-Noun-Headed nominals by juxtaposition of a dependent constituent with the nominalizers, e.g. *no* and *koto*. The derivative noun, bound-noun-headed constituent, action nominal constituent as well as nominal clause together form a grammatical category called nominals, most of which partake both as the head or the adnominal in the formation of NP involving certain grammatical rules.*

Keywords: *Nominalization; Noun Phrase; Japanese*

Abstrak

(Nominalisasi dan Perannya dalam Pembentukan Frase Kata Benda dalam Bahasa Jepang) Penelitian ini menyoroti hasil nominalisasi dan perannya dalam pembentukan frase kata benda dalam bahasa Jepang dengan mengikuti metodologi dalam kerangka studi yang disebut kerangka nominalisasi, dimana nominalisasi merupakan suatu proses morfosintaksis. Nominalisasi sebagai suatu proses yang beroperasi pada konstituen linguistik yang kemudian mengubahnya menjadi konstituen turunan/transformasi. Hal inilah yang melahirkan kata benda turunan yang terjadi dari kata-kata selain kata benda yang melibatkan proses derivasi/turunan serta konstituen nominal tindakan dan klausa nominal yang masing-masing melibatkan proses desentensialisasi dan transformasi simultan, dan proses pengurangan sifat klausa. Proses ini pada dasarnya berbeda dari pendekatan nominalisasi pada umumnya, yang menurunkan nominal kata benda terikat dengan penjajaran konstituen dependen dengan nominalizers, misal *-no* dan *-koto*. Kata benda turunan, kata benda terikat, konstituen nominal tindakan serta klausa nominal bersama-sama membentuk kategori gramatikal yang disebut nominal, yang sebagian besar memiliki peran baik sebagai kepala atau adnominal dalam pembentukan frase kata benda (NP) yang mengikuti aturan tata bahasa tertentu.

Kata kunci: Nominalisasi; Frase nomina; Bahasa Jepang

INTRODUCTION

Nominalization is found to be a productive morphosyntactic process, though the Japanese linguists describe it to be a matter of juxtaposition of a linguistic constituent and a particle or bound-noun. In these studies, the linguists describe '*samu*' and '*Gakusei ga ronbun wo kaku* (The student writes an essay.)' respectively in juxtaposition with a formative, e.g. *sa* and a bound-noun, e.g. *koto* constitute a derivative noun, *samusa* (coldness) at the lexical level (Wrona, 2011 and Hanna, 2018) and transformed constituent, *ronbun wo kaku koto* (that student writes an essay) at the syntactic level (Makino, 1968; Nakau, 1973; Song, 1982; Horie, 1997; Maynard, 1997; and Tohru, 2012) as follows.

- i) *samu+sa* = *samu-sa* (coldness)

ii) *Gakusei ga ronbun o kaku+koto* = *Gakusei ga ronbun o kaku koto* (that student writes an essay)

In the former, the adjective, i.e. *samui* (cold) turned into a deverbal noun, while in the later, the constituent *Gakusei ga ronbun wo kaku* in juxtaposition with the nominalizer, i.e. *koto* yields a *bound-noun-headed* constituent, i.e. '*ronbun wo kaku koto*'. The type of approach followed in these prevalent studies has been known as nominalizer-based nominalization approach or nominalizer approach, because it employs the nominalizers including formatives, e.g. *sa* and bound-nouns, e.g. *koto*.

However, the recent advance in linguistics has come up with a new description on *nominalization*, which posits it to be a morphosyntactic process that turns forms/constituents into noun-like forms/constituents. The yields of the nominalization are the derivative forms or transformed constituents which partake in the formation of Noun Phrase (NP). Given this advancement in the studies of nominalization, the researcher demonstrates the formation of NP involving the processes of nominalization following a methodology complying with the nominalization framework. To do that, the researcher firstly describes the role of nominalization in the formation of NP and then he will expound the dynamism of nominalization involving the components of nominalizee (the source of nominalization), nominalizer (the means of nominalization) and nominal (the yield of nominalization) in the nominalization framework. Subsequently, the researcher derives the nominal in Japanese in compliance with the nominalization framework, and then the researcher shows their partaking in the formation of NP in Japanese.

Nominalization as an Accompanying Strategy of Formation of Noun Phrase

The NP is a kind of phrase that has a noun (or indefinite pronoun) as its head, which as a linguistic unit performs the same grammatical function as the noun does.

A typical NP is formed out of a noun as the head of a phrase together with zero ($\emptyset$) or more dependent constituents of various types as its adnominal. The relative position and order of a dependent adnominal is a typological parameter, on which an NP turns on. The adnominal constituents in an NP vary in structure and function, which are of four types: morphological, lexical, phrasal, and clausal, of which the morphological one tends to be a smaller, while the clausal one tends to be a larger (Givón, 2001: 1-3). The constituent of a typical NP is as follows.

NP Continent: Dem Quan GEN (NP -GEN/POSS) (Adj phrase)
Verbal clause Head-NOUN

[Here, the adnominal in the parentheses '()' indicates that it allows recurrence. The element separated by '/' indicates that the modifiers are mutually exclusive.]

An NP incorporates the yields of nominalization (designated as Nominal in the upcoming section) including derivative and transformed constituent involving certain grammatical rules. Hence, an NP owes many of its complexity to the process of nominalization.

Some studies address the issues of nominalization and that of the NP in Japanese separately, while none of them focus on how the process of nominalization contributes to the formation of NP. For example, the study on NP by Matsumoto (1997) is one of this kind, which construed clausal noun modifying constituent (NMC) in terms of semantic-pragmatic criteria, that averted the rationale of nominalization framework. Thus, the proposed

nominalization framework is of worth to provide a methodology to derive the yields of nominalization and state the role of them in the formation of NP.

Articulating Nominalization Framework

This study offers a framework being informed with the morphosyntactic theories formulated by Koptjevskaja-Tamm (1993), Lehmann (1988), and Givon (2001), which posited *nominalization* to be a morphosyntactic process. It is a process that involves source, agent, means and yield in order to make it happen. For the convenience, the components: source, agent and yield of nominalization will be labelled as Nominalizee, Nominalizer and Nominals, each of which will be abbreviated in acronyms as denoted in the corresponding parentheses as follows.

Nominalizee (NLZ)

The NLZs are the base/source constituents distinguished into words and clauses on which a process of nominalization is operated. It involves the source (or base) word, e.g. *samui* (cold) [NLZ-1] at the lexical level and the source (or base) constituent, e.g. *Gakusei ga ronbun wo kakimasu* (The student writes an essay.) [NLZ-2] at the syntactic level on which the nominalizations are operated.

Nominalizer (NLR)

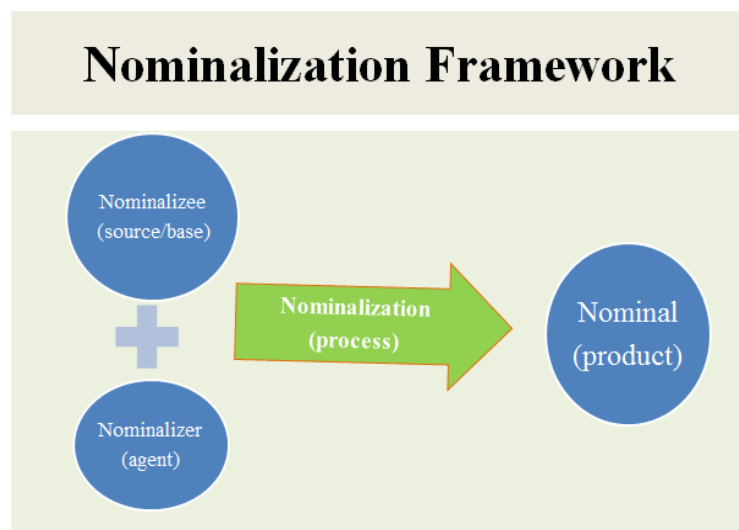
The NLRs are the agent of nominalization distinguished into bound morpheme, e.g. *sa* or $\emptyset$ ($\emptyset$ morpheme) comprising the set of nominalizers NLR₁ (as in section-3) and bound noun, e.g. *no* and *koto* which assist the morphosyntactic process of nominalization to yield respectively a derivative noun and a transformed constituent.

Nominal (NML)

The NMLs are the yields of morphosyntactic processes of nominalization are a) derivative noun e.g. *samu-sa* at lexical level and b) transformed constituent, which further distinguished into action nominal constituent (ANC), e.g. *gakusei no ronbun-kaki* (student's writing of an essay) [NML-3a] and nominal clause, e.g. *gakusei ga ronbun o kaku* (that student writes an essay) [NML-4] at the syntactic level, which together form a grammatical category to be called nominals

Thus, the yields of nominalization are the NMLs which either as a Head-Noun or as a dependent contributes to the formation of an NP. Hence, the parameters associated with the morphosyntactic process of nominalization includes nominalizing rules, nominalizee (NLZ), nominalizer (NLR) and nominals (NML) which depicts a mechanism of nominalization as presented in the Figure 1.

Figure 1. Nominalization Framework at a Glance



As we come through, the nominalization involves either the morphosyntactic process of derivation or that of the transformation, the

yields of which are NMLs. Hence, the present framework of nominalization resolves the confusion pervading over the process-product dichotomy, which has been seen to arise over the nominalizer approach in the volume titled *Nominalization in Asian Languages: Diachronic and Typological Perspective* by Yap et al. (2011).

Detracting the Prevalent Nominalizer- Approach in Japanese

The framework introduced in the foregoing section offers a kind of morphosyntactic process of nominalization, which detracts the Nominalizer-approach.

It employs NLRs as agents of nominalization in yielding NMLs, though an NLR is not always necessary in order to occur a morphosyntactic process of nominalization. Japanese language is abounding with the NLR-based nominalization studies. Over the last 5 decades, several linguists, mainly Japanese linguists, have come with the studies to address the issue of nominalization involving NLRs. Wrona (2011) and Hanna (2018) respectively employs nominalizing morpheme *-sa* and *-sa, -sei* in deriving lexical NMLs. Similarly, other linguists employed the NLRs [as given in the parentheses corresponding to the name of linguists] in deriving transformed constituents at the syntactic level include Makino (1968) [*no, koto*], Nakau (1973) [*no, koto, tokoro*], Song (1982) [*no, koto, tokoro*] and Horie (1997) [*no, koto, ∅ (zero)*]. The bound morphemes (N1) employed for the derivation of

lexical NMLs and bound-nouns (N2) employed for the derivation of bound-noun-headed constituents respectively form two different sets of NLRs as follows.

$NLR_1 = \{sa, sei \text{ and } mi, \text{ etc.}\}$

$NLR_2 = \{\emptyset, no, ya, koto \text{ and } tokoro, \text{ etc.}\}.$

Hence, the NLR-based nominalization approach describes the process of formation of derivative nouns or that of bound-noun-headed constituents respectively by affixation of a lexical morpheme, e.g. *sa* to a lexical root, e.g. *samu* and the bound-noun, e.g. *koto* to the clausal constituent, e.g. *Gakusei ga ronbun wo kaku*. as nominalization are as follows.

a) Derivative noun (root form of adj. +NLR₁)

(NML-1a) *samu+sa= samu-sa*
Coldness

b) Bound-Noun-Headed NML (Verbal clause +NLR₂)

(NML-2a) *Gakusei* *ga* *ronbun* *wo* *kaku* +*koto*
Student NOM Essay ACC write-COMPL NML
Writing of an essay by a student

Nakau (1973) has conducted some studies in line with the NLR-based approach, who describes an NLR to bear a nominalizing function, which assigns nominalization to an NP with a nominalizer, e.g. *no* and *koto* (NLR-2) on its head as follows.

Bound-Noun-Headed NML (Verbal clause +NLR₂)

(NML-2b)	<i>kujira</i>	<i>ga</i>	<i>honyuu doobutsu</i>	<i>de aru</i>	<i>no</i>
	Whale	TOP	mammals	COP	NLR
	That a whale is a mammal				

Similarly, Horie (1997) describes nominalization to be a strategy of using the NLRs in the formation of a clausal constituent with the bound-noun on its head.

Though, the derivation of a deadjectival noun, e.g. *samu-sa* accords with the rationale of morphosyntactic process of nominalization, the derivation of Bound-Noun-Headed constituents, which we came through, are impoverished by the rationale of proper nominalization, but still influential in Japanese linguistics. Chen (2013, p. 151) described that Bound-Noun-Headed constituents (derived by NLR-based approach) did not match with the NML constituents derived by involving morphosyntactic process of nominalization. Hence, these are found to be impoverished by the rationale of proper morphosyntactic criteria. In the similar line, the NLR-based approach follows the categorization of nominalization, which put the category names after the name of NLRs, for example *no*-nominalization and *koto*-nominalization (Maynard, 1997 and Tohru, 2012) do not comply with the rationale of nominalization of the proposed framework.

To resolve the above-said flaws of NLR-based approach, this study describes morphosyntactic processes of nominalization by incorporating all the terminology of nominalizations: NLZ, NLR, and NML in an interactive

manner, so that the nominalization vis-à-vis formation of the NP can be described systematically.

METHODOLOGY

This study investigates the formation of NPs by incorporating the yields of nominalization. Thus, it involves two-fold grammatical operation in phases: derivation of NMLs from NLZs involving nomination as well as the formation of NPs by incorporating NMLs in them as a linguistic unit.

In the first phase of this study, the researcher derived three different kinds of NMLs: Lexical NMLs and ANCs by investigating the nominalization processes operating over different kinds of NLZs. The nominalization processes that operate on lexical forms are the grammatical processes of conversion and derivation at the lexical level, while those that operate on the sentences are dual processes of transformation and derivation and reduction in certain causal properties of clauses at the sentence level. In this regard, the researcher derived different types of NMLs by investigating the nominalization processes operating over different kinds of NLZs with the support of necessary linguistic evidence. These grammatical processes are conversion and derivation which operate over the words other than the noun, i.e. verb and adjective at the lexical level and bring forth lexical NMLs. Additionally, the researcher derived ANCs and Nominal clauses by

investigating the dual processes of transformation, and derivation and reduction in certain clausal properties of clauses operating over the NLZs at the sentence with the support of linguistic evidence. In this phase, the researcher accumulated all the yields of the nominalization including Lexical NMLs and ANCs, and Nominal clauses, which are as good as Noun and good enough to partake in the formation of NPs.

Then, in the second, i.e. last phase, the researcher showed how each of the lexical NMLs, ANCs, and nominal clauses either as a Head or as an Adnominal partake in the formation of NPs with the support of linguistic data.

RESULTS AND DISCUSSIONS

Illustrating Nominalization as Morphosyntactic Process in Japanese in the Nominalization Framework

Recent advance in nominalization has come up with the description of morphosyntactic process of nominalization in a wider perspective. It envisages a framework of nominalization that bears an overriding premise over the nominalization approach. In this approach, as we came through the section-3, the NLZ, NLR, and NML are respectively held to mean a source (i.e. source of form or constituent), agent and product. Thus, an NML is a product of the morphosyntactic process of nominalization which is formed out of the

combination of NLZ and NLR involving either a morphosyntactic processes of derivation or that of transformation.

Nominalization

In traditional thought on linguistics, *nominalization* refers to the creation of a noun from the verbs or adjectives. It is conceived as a transcategorical operation that derives NMLs from non-nominals (Comrie & Thompson, 1985). Thus, conventionally, it is used to mean derivational process has recently been used to cover two more processes: transformation and reduction in the finiteness of a clause, which respectively yield i) an NP with deverbal/deadjectival noun on its head termed as an action NML constituent (ANC) or, and ii) desentential clause or NML clause involving the process of structural/functional adjustment. In this way, it is taken to grant a set of three different but related processes: derivation, transformation, and reduction in the finiteness of a clause. The morphosyntactic processes operate on the lexical level and clausal level are respectively termed as lexical nominalization and clausal nominalization as follows.

Lexical Nominalization

Lexical nominalization is a productive process, by means of which a word belonging to other than the noun class yields a derivative noun as in the constituent with or without some morphological adjustment. It is relatively

less productive in Japanese as compared to that in English. Nishio (1961) found only 30% -40% of verbs can be transformed into deverbal NMLs.

Clausal Nominalization

The clausal nominalization is a productive process, which operate on a finite clause. The advocates of this perspective are functional-typologists, e.g., Koptjevskaja-Tamm (1933) and Lehmann (1988), who demonstrated that nominalization existed in a constituent in degree to be signified with the degree of finiteness of a clause. In this perspective, it involves a kind of morphosyntactic process which can be seen as an epiphenomenon of the desententialization process. It operates on the finite clauses to derive ANCs as well as the NML clauses. In this line, Lehmann (1988) demonstrated that the degree of nominalization can be seen as the gradual reduction of sentential properties in a cline of desententialization inversely related to substantiation. As the verbal/adjectival sentences undergo the process of nominalization, they receive the constraints of clausal properties along the Lehmann's cline of desententialization (1988, p. 200) as follows.

Constraints on/loss of illocutionary elements>constraints on/loss of mood/modal elements> constraints on/loss of tense and aspect>dispensability of complement>loss of personal conjugation/conversion of subject into oblique>no polarity>conversion of verbal into nominal government>dispensability of subject/constraints on complements

[Here, > represents *prior to* relation]

The cline of desententialization is a continuum showing the degree of finiteness in a constituent in terms of the clausal properties by placing the finite clause, i.e., a sentence at the extreme left end and an ANC like phrase at the extreme right end. Therefore, the constituent towards the left end tends to show finiteness containing all the required properties of an independent clause and that towards right end tends to show an ANC like phrase with the reduction of all properties of independent clause. Therefore, the degree of achievement of nominalization by a constituent is conversely related to the number of loss of clausal properties. Hence, the maximum loss of clausal properties leads to the derivation of an ANC i.e., an NP with the derivative verbal noun on its head. Shibatani (2009) demonstrated that the structural and functional adjustment of a finite clause occurred through the elimination or reduction of some sentential properties like illocutionary and modal properties from the sentence. Baker (2011) proved that nominalization existed in degree in a clause-like constituent in the cline of desententialization of *Sakha*.

Hence, the clausal nominalization brings forth two different types of NML constituents depending on the extent of reduction of clausal properties from a finite clause (sentence) as it undergoes the nominalization process. The complete nominalization at the syntactic level involves the simultaneous process of derivation and transformation, which yields an ANC, i.e. NP with

the derivative verbal noun on its head (NML-3). On the other hand, the partial clausal nominalization involves the reduction of certain clausal functions of the clause to transform a finite clause into a dependent clause (NML-4).

Nominalizee

The NLZs are the linguistic constituents on which the process of nominalization are operated and turn themselves into NMLs. There are of two types as follows:

i) Lexical NLZ that belongs to the word-class other than the noun-class on which nominalization is operated to derive a derivative noun, e.g.

(NLZ-1a) Adjective, e.g. *samu-i* (cold)

(NLZ-1b) Verb, e.g. *odoru* (to dance)

ii) Clausal NLZ that belongs to the finite clause, i.e. a sentence containing all the sentential properties, i.e. illocution, mood, tense and aspect, etc. depending on which nominalization is operated and turns into NML, as for example.

(NLZ-2) *Gakusei wa ronbun wo kakimasu.*
Student NOM essay ACC write-PRS.AFF
The student writes an essay.

Nominalizers

The NLRs are the bound morphemes or bound nouns which assist the morphosyntactic process of nominalization by affixation to the NLZ yielding the NMLs. Though the NLR-based approach requires an NLR belonging to the

set of NLR_1/NLR_2 to derive a NML, the proposed framework of nominalization does not necessarily employ NLRs in deriving a NML. It posits that an NLR requires at the lexical level mostly get fused with the NMLs.

Nominalizers in De-adjectival Nominalization

According to the distributive morphology developed by Halle and Marantz (1993), the lexical roots $\sqrt{x}$, e.g. *samu* are the NLZs which are little different from the lexical categories, e.g. $X=Noun$, e.g. noun, verb and adverb, etc. They get fused with the bound morphemes n , e.g. *sa* and consequently yield lexical NMLs. Therefore, a lexical NML is formed out of a lexical root $\sqrt{x}$ and a bound morpheme of NLR_1 can be shown in a formula as follows.

$$NML = X = \sqrt{x} + n$$

Accordingly, an adjectivizer, e.g. *i*, an adverbializer, e.g. *ku*, a NLR, e.g. *sa* and a verbalizer, e.g. *garu* being affixed to the root form, i.e. $\sqrt{x}$, e.g. *samu* (root form of cold) derives a word X , e.g. adjective, adverb, noun and verb. The morphemes affixed to the common lexical root $\sqrt{x}$ sometimes form a regular paradigm in Japanese as follows.

- | | | |
|----------------|---|----------------------------------|
| a) Adjective : | $\sqrt{samu}$ + adjectivalizer <i>i</i> | = <i>samui</i> (cold) |
| b) Adverb : | $\sqrt{samu}$ + adverbializer <i>ku</i> | = <i>samuku</i> (coldly) |
| c) Noun : | $\sqrt{samu}$ + NLR <i>sa</i> | = <i>samusa</i> (coldness) |
| d) Verb : | $\sqrt{samu}$ + verbalizer <i>garu</i> | = <i>samugaru</i> (to feel cold) |

Similarly, an adjectivizer, e.g. *na*, an adverbializer, e.g. *ku* and a NLR, e.g. *sa* being affixed to the root form, i.e. $\sqrt{x}$, e.g. *kirei* (root form of cold) derives a word X, e.g. adjective, adverb and noun. The morphemes affixed to the common lexical root $\sqrt{x}$ sometimes form a paradigm in Japanese as follows.

- a) Adjective : $\sqrt{kirei}$ + adjectivizer *na* = *kireina* (beautiful)
- b) Adverb : $\sqrt{kirei}$ + adverbializer *ni* = *kireini* (beautifully)
- c) Noun : $\sqrt{kirei}$ + nominalizer *sa* = *kireisa* (beauty)

Therefore, an adjectival NLR can be shown by deducting $\sqrt{x}$ from X, i.e. $X - \sqrt{x}$ (*samusa*—*samu*)=*sa*. Accordingly, $X = \sqrt{x} + \text{NLR}$ is the notation which provides a formula in combining the $\text{NLZ} + \text{NLR} = \text{samu} + \text{sa}$ to derive an NML, i.e. an adjective *samui*. Hence, ‘*sa*’ is an adjectival NLR or nominalizing morpheme, which is affixed/fused with the root, i.e. $\sqrt{x}$, to form a derivative noun.

Nominalizers in Deverbal Lexical /Clausal Nominalization

The lexical nominalization brings forth NMLs out of verbs by conversion, and the clausal nominalization derives ANC and NML clause from the verbal sentence by transformation, both of which mark changes on the verb. However, the changes, which is marked on the verb is not realized with a separate NLR, rather they get fused with the verb. The changes appear in a paradigm of verbal inflection can be presented as follows.

- | | |
|--|------------------------------|
| a) Irrealis form (<i>mizen-kei</i>), e.g. | <i>kaka</i> (- <i>nai</i>) |
| b) Continuative form (<i>renyou-kei</i>), e.g. | <i>kaki</i> (- <i>masu</i>) |
| c) Completive form (<i>shuushi-kei</i>), e.g. | <i>kaku</i> |
| d) Attributive form (<i>rentai-kei</i>), e.g. | <i>kaku</i> |
| e) Conditional form (<i>katei-kei</i>), e.g. | <i>kake</i> (- <i>ba</i>) |

f) Imperative form (*meirei-kei*), e.g. *kake (-yo)*

The deverbal NMLs and the head of ANCs end with continuative forms of verb ended in ‘-i’ in relation to the root form of verbs, i.e. *odor-*, *kak-* as follows.

a) (NML-1b) *odori* (dance)

b) (NML-3a) *gakusei no ronbun-kaki* (students’ essay writing).

Therefore, in line with the inflection system of verb, the formative ‘-i’ can be regarded as an NLR that contributes to the derivation of a lexical NML and an ANC.

Hence, the above analysis of nominalization offers a set of NLRs, i.e. *sa*, *i* and *u*, which form a set N_1 (as introduced in section 4) as follows.

$$NLR_1 = \{sa, i \text{ and } u\}$$

The NLRs in the set NLR_1 are different from the NLRs in the set NLR_2 of the prevalent nominalizer approach. Hence, the set of N_1 and the set of N_2 do not form a common superset of NLRs.

Nominal Constituents or Nominals

The NML constituents or NMLs are the yields of the nominalization process. The form and function of them as NP constituents vary depending on

the type of nominalization processes they undergo. They can be distinguished into lexical NML, ANC and NML clause.

Lexical Nominal

The lexical NMLs can be put into different headings in accordance with the base-constituents from which they are derived as follows.

a) De-adjectival/de-adverbial Nominal

A de-adjectival NML can be derived by conversion from the adjectival verb (*i-keiyōshi*), e.g. *samu-i* (cold), being different from the adjectival noun (*na-adjective*, *keiyō-dōshi*) as follows.

(NML-1a) De-adjectival NML, e.g. *samu-i* (cold) > *samu-sa* (coldness)

b) Deverbal Nominal

The most typical derivative noun is the deverbal noun, which is derived from the verb involving some morphological process with or without the affixation of a NLR at the lexical level as follows.

(NML-1b-i) Ø Derivation : *odori* (dancing) derived by conversion from *odoru* (to dance)

(NML-1b-ii) Back-formation : *benkyou* (study) derived by removing *suru* from *benkyou suru* (to study)

Variety of Deverbal Nominals as Reflected in the Continuum of Degree of Independence

The deverbal NMLs are the continuative forms of verbs, which function as the nouns. Chen (2013) has categorized them into three types based on their degree of independence in compliance with some given morphosyntactic criteria that a deverbal nominal enjoys in a clause constituent. They are as follows.

i) Independent type: The independent type is as same as the noun, which stand on 'ga' and 'wo' case-particles as they enter in a clause. For example,

- (NML-1a-i) *samusa*
- (NML-1b-i) *odori* (dance),
- (NML-1b-iii) *oyogi* (swimming).
- (NML-1b-iv) *asobi* (enjoyment),

ii) Phrasal-aid type: The phrasal-aid type requires morphosyntactic aid from the phrasal constituent to stand as nouns. For example,

- (NML-1c-i) *atari ga tsuyoi* (hit is strong>strong hit),
- (NML-1c-ii) *okyaku-sama no uke ga yoi* (reputation is good with guest),
- (NML-1c-iii) *terebi no utsuri ga warui* (reflection of television is bad),

[Here, *atari* (hitting), *uke* (acceptance/reputation) and *utsuri* (reflection) are respectively the deverbal nouns]

iii) Compound-word type: The compound-word type is the deverbal NML, which are formed by compounding two or more words. For example,

- (NML-1d-i) Noun+Verb compound-word type, e.g., *ne-agari* (hike in price)
- (NML-1d-ii) Noun+Noun compound-word type, e.g., *zei-komi* (tax-included)

The types of deverbal NMLs in i), ii) and iii) as linguistic unit vary in the degree of their independence, which can be represented on a scale of continuum as in figure 2.

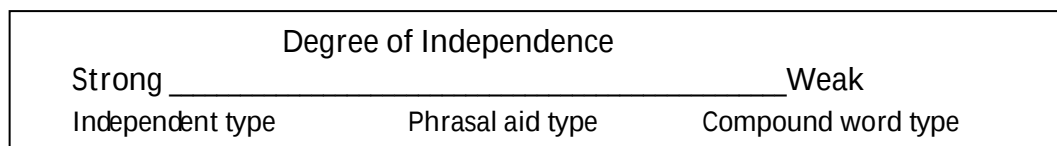


Figure 2. Continuum of the Degree of Independence of Deverbal Noun

Variety of Deverbal Nominals in Terms of their Function

The deverbal NMLs can be of different types depending on the role they play as a linguistic unit as follows.

(1b-i) Action/state NML : *odoru* (to dance)> *odori* (dancing)

(1b-v) Agent NML : *suru* (to pickpocket) > *suri* (a pickpocket)

(1b-vi) Instrumental NML : *shimi wo toru* (to remove spot)> *shimi-tori*
(spot remover)

(1b-vii) Locative NML : *uku* (to float)> *uki* (a float)

Clausal Nominal

The clausal NMLs are of different types of constituents: i) those which are constituents constituted with the derivative noun on their heads called ANC, and ii) those which are clause-like constituents, i.e. NML clause as follows.

i) Action Nominal Constituent

The ANC is a constituent which takes a deverbal noun on its head. It is the yield of clausal nominalization, where *'the entire finite clause that gets nominal inflectional features, so that its head cannot be considered a noun* (Comrie & Thompson, 1985: 392)'. For example,

(NML-3a) *Gakusei no ronbun-kaki*
Student GEN write-CONT-essay)
Student's essay-writing

The ANC form four broad categories depending on the structure of predicative verbal form as follows.

a) Possessive ANC: Transformed constituent of the intransitive verbal clause showing possessiveness to the nominalized verb as follows.

(NML-3a) *Gakusei no ronbun-kaki*
Student GEN write-CONT-essay)
Student's essay-writing

b) Double-possessive (DBL-POSS) ANC: Both subject and object show possessiveness to the nominalized verb with the double valencies of transformed constituent. Koptjevskaja-Tamm (1993:169~172) emphasizes that the Japanese has the pattern of DBL-POSS ANC. For example,

(NML-3b) *Tanaka-shushou no keisatsu no shirabe* (p.172)
Prime Minister Tanaka GEN police GEN investigate-CONT
Investigation of Prime Minister Tanaka by the police

c) ANC with the alternative Head-Noun: The Head-Noun of it is formed through the alternation of predicative verb to the verbal noun of Chinese origin word. For example,

(NML-3c) *gakusei no ronbun-sakusei*
Student POSS essay-composition
Student's essay-composition

ii) Nominal Clause

The NML clause is a verbal clause as in (NML-4) constituted of a subject and a predicate which as a dependent clause combined with a matrix clause constitutes a complex sentence= NML Clause [*toki ni* Matrix Clause]. For example,

(NML-4) *Gakuseiga ronbun wo kaku*
Student NOM essay ACC write-COMPL
Student's writing of a dissertation.

(Complex sentence)
Gakusei ga ronbun wo kaku [toki ni pen wo kaimasu].
Student NOM essay ACC write-COMPL COMP-when
pen ACC buy-PRES]
Student buys a pen, when writing a dissertation.

The NML clause retains almost all of its clausal properties except some properties of sentence including illocution and modal properties.

The three types of NMLs: Derivative NML, ANC, and NML clause, which we came through in the foregoing sections, do not receive any bound-noun NLRs contained in the set NLR_2 as the head of them. However, the

bound-noun-headed NMLs are derived by involving a type of nominalization, for which they are different from the NMLs derived involving the envisaged process of nominalization.

Nominals Partaking in the Formation of Noun Phrase in Japanese

The NMLs are the yields of nominalization which partake in the formation of NP. In Japanese, a typical NP is formed out of a noun as a head of the phrase together with $\emptyset$ or more dependents of various types as it's adnominal. The adnominals are of four types: morphological, lexical, phrasal and clausal. The relative order of an adnominal is a typological parameter, on which an NP turns on. In Japanese, the demonstrative, e.g. *sono* (that), being a morphological adnominal, maintains a rigid order in relation to the clausal and the phrasal modifiers and hold an initial position, while an adjective adnominal never precedes the clausal/phrasal adnominals in the array of adnominals in an NP. As we come through the template of NP in Section-1, the linear order of different types of adnominal on the Head-Noun in an NP can be represented as follows.

(NP-Base)

*Sono hitori no Nagoya-shusshin no odori ga jouzuna ronbun wo kaku
gakusei*

Dem	Quan (GEN)	NP (GEN/POSS)	(Adj phrase)	NML
clause	Head-Noun			
That	one-person	of Nagoya born	good at dance	that writes
an essay	student			
One of those students who is Nagoya-born and good at dancing will write				
essay				

The NMLs partake both as the adnominal and the Head-Noun involving certain grammatical rules in the formation of an NP can be listed as follows.

- a) Lexical Nominal (NML-1a) : de-adjectival NML, i.e. *samu-sa* (coldness),
Lexical Nominal (NML-1b) deverbial NML *odori* (dancing)
- b) Bound-Noun-Headed (NML-2a) : *ronbun wo kaku-koto*
- c) ANC (NML-3a) : *gakusei no ronbun-kaki*
- d) NML clause (NML-4) : *gakusei ga ronbun wo kaku*

Here, the NML-1 is a kind of deverbial noun, whereas the NML-2 and NML-3 are a kind of NP and NML-4 is a kind of verbal clause. They respectively being the lexical, phrasal and clausal types partake in compliance with some morphosyntactic rules in the formation of NP.

Nominal Partaking in an NP as the Head-Noun

Given that the NML-1 is a lexical NML and the NML-2 and NML-3 are the NP, the NML1 and the Head of the NML-2 and NML-3 partake as the Head-Noun in the formation of an NP, the instances of which are as follows.

i) Lexical nominal as a Head-Noun

- (NP-1)a. *Kinou* *no* *samu-sa*
Yesterday GEN coldness (NML-1)
Coldness of yesterday
- b. *Kinou* *no* *odori*
Yesterday GEN dancing (NML-1)
Dancing of yesterday

ii) Head of Bound-Noun-Headed NML as a Head-Noun

- (NP-2) *ronbun wo kaku-koto*
 Essay ACC writing (bound-noun-headed NML-2)
 writing an essay

iii) Head of Action Nominal Constituent as a Head-Noun

- (NP-3) *gakusei no ronbun-kaki*
 Student GEN essay-writing (NML-3)
 Student's essay writing

However, the NML-4 being a clause does not partake in the formation of an NP.

Nominals Partaking in the NP as an Adnominal

All the NMLs except the NML clause (NML-4) including (NML-1), NML-2) and (NML-3) partake as adnominal in the formation of an NP. The instances are as follows.

i) Lexical NML as an adnominal= (NML-1)+Head-Noun :

- (NP-5) *Samu-sa no hanashi*
 Coldness (NML) GEN story
 Story of coldness

- (NP-6) *Odori no hanashi*
 Dancing (NML) GEN story
 Story of dancing

ii) Bound-noun-headed NML as an adnominal= (NML-2)+Head-Noun

- (NP-7) *Ronbun wo kaku-koto no hanashi*
 [Essay ACC writing (NML)] GEN story
 Story of writing an essay

iii) ANC as an adnominal= (NML-3)+Head-Noun

(NP-8) [*Gakusei* *no* *ronbun-kaki*] *no*
hanashi
[Student POSS essay-write-CONT] GEN story
Story of student's essay-writing

However, the NML-4 does partake as an adnominal in the formation of NP.

Clausal Noun Phrase as the Transformed of Nominal Clause

The NML clause in iv) being a verbal clause does not partake in the formation of an NP. However, it can be made a clausal NP by transformation as follows.

i) Nominal Clause

(NML-4) *Gakusei* *ga* *ronbun* *wo* *kaku*
Student NOM essay ACC write-COMPL
That student writes an essay

ii) Transformed NP

(NP-10) *Ronbun* *wo* *kaku* *gakusei*
Essay ACC write-COMP student (Head-Noun)
Student who writes essay

CONCLUSION

The proposed nominalization framework being different from the nominalizer-based nominalization approach describes nominalization to be morphosyntactic process, the yields of which form a grammatical category, i.e. nominal (NML) distinguished into derivative noun, ANC and NML clause. The NMLs except the NML-4 partake to some extent in the formation of NP either as the Head of NP or as the adnominals. However, the NML clause itself does

not partake in the formation of NP but can be transformed into a clausal NP by transformation. In the similar perspective, the nominalizee (NLZ), nominalizer (NLR) and nominal (NML) together interact to demonstrate the dynamism of nominalization, which can be displayed in table 1 in showing a comparative picture.

Table 1. Process, Base, Means, Outcomes of Nominalization and Their Role in the Formation of NP at a Glance

Nominalization process	Nominalization rules	Nominalizees (NLZ)	Nominalizers (NLR)	Nominals (NML)	Nominals in NP
i) Derivation	Suffixation and fusion of morphemes	verb, adjective	<i>sa, sei, and mi</i> , etc.	Derivative noun	Head-noun, adnominal
ii) Juxtaposition	Apposition to the bound noun	Finite clause	<i>koto</i> and <i>no</i> and <i>tokoro</i> , etc.	Bound-noun-headed phrase	Head-noun, adnominal
iii) Derivation and Transformation	Conversion	Finite clause	None	Action Nominal Constituent (ANC)	Head-noun, adnominal
iv) Desententialization	Reduction in certain clausal properties	Finite clause	None	Nominal Clause	Transformed function as an NP

Hence, the nominalization framework has come with the description of process (nominalization), base (NLZ), means (NLR) and outcomes (NML) of nominalization in a comprehensive manner. While the nominalizer-based approach of nominalization brings forth the Bound-Noun-Headed nominals, the nominalization as a morphosyntactic process in the nominalization framework derive the nominals of free morpheme types. The yield of

morphosyntactic process being different from Bound-Noun-Headed nominals from a grammatical category NML which partake in the formation of NP. Hence, nominalization can be regarded as one of the accompanying strategies for the formation of NP in Japanese.

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