

A Functional-Cognitive Interpretation of Syntactic Nominalization in Modern Written Mongolian

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Abstract: Verbal nominals in traditional descriptions of Mongolian are described in terms of their morphological properties or meanings. They are assumed to act either as subordinate clauses, gerunds or infinitives like those in English. However, there is no a clear and reasonable explanation as to how the nominalized structures with the presence of verbal nominal change from process to thing. This paper, on the other hand, recognizes the Mongolian verbal nominal as syntactic nominalization from the functional and cognitive perspectives, which can be further divided into nominative case-marked subject nominalization, genitive case-marked subject nominalization and subject-missing nominalization. The paper proposes a generative framework for the syntactic nominalization in which the clause with verbal nominal is rank-shifted into a nominal expression by packaging the encoded information, and consequently while the verbal nominal suffix is reanalyzed as a nominalized element of the whole phrase or clause, the dynamic process of the clause is reanalyzed as a static event, and then the lexical and structural meanings of the embedded clause are re-matched via coercion. The functional and cognitive description presented in this paper provides a functionally and cognitively motivated interpretation of the generation mechanism of the syntactic nominalization in Mongolian and the interactions between the levels of lexicogrammar and semantics.

Keywords: Mongolian Syntactic Nominalization, Rank-Shift, Reanalysis, Analogy, Coercion

1. Introduction

Nominalization is one of the universal features of human language. Nominalization in English not only includes the derivative nouns at the lexical level, but also the transferred nominalizing structures at the syntactic level, such as that-clause, v-ing gerund, infinitive phrase, etc. (Halliday [11], Givón [7], Heyvaert [14], Heyvaert et al. [15]). In the Mongolian language, there are also syntactically transferred nominalizing structures, namely, syntactic nominalization, which is mainly formed by adding verbal nominal (hereafter VN)¹ suffixes to the verb stem. The examples of syntactic nominalization (underlined part) are

provided as follows:

- (1) *Dorji ene nom-i abu-γsan-i bi sayi mede-le.*²
Dorji this book-ACC buy-VN-ACC I just know-PT
(I just found out that Dorji bought the book.)
- (2) *Dorji-in ene nom-i abu-γsan-i*
Dorji-GEN this book-ACC buy-VN-ACC
bi sayi mede-le.
I just know-PT
(I just found out that Dorji bought the book.)

1 The inflection, such as -γsan/gsen, -qu/kü, -day/deg, etc., is glossed participle (Zhang Dongbing [39]), PERF (perfective) (Hale [9]), or VN (verbal nominal) (Binnick [2]). Due to the verbal and nominal properties of the inflection, the term VN is adopted to represent the verbs with the inflections by following Binnick.

2 The data in this paper are transcribed using international Latin symbols (see Qinggertei [31]). Abbreviations included therein are, NOM, nominative Case; GEN, genitive Case; ACC, accusative Case; DAT, dative case; INS, instrumental Case; COM, comitative Case; ABL, ablative Case; PT, past tense; ADJL, adjectivization; CVB, converb; POSS, possessive; RPOS, reflexive possessive; NEG, negative; MP, modal particle; AV, auxiliary verb.

(3) *širyayu ajilla-qu ni saišiyaltai kereg.*
 Hard work-VN 3POSS praiseworthy thing
 (Working hard is praiseworthy.)

Mongolian is an adhesive language with complex morphological changes, mainly by means of adding different suffixes to the stem to realize the grammatical meaning. In (1), the complete clause *Dorji ene nom-i abuysan* (Dorji bought the book) is combined with ACC (-i) to act as Object in the clause; In (2), Actor which is in the form of GEN, is combined with the VN expression *ene nom-i abuysan* (bought the book) and ACC (-i) to act as Object in the clause; The VN expression *širyayu ajillaqu* (hard work) with the concept of general reference in (3) is followed by the pronominal possessive (*ni*) to function as Subject. The common feature of the above underlined constructions is that the verbs appear in the form of VN and are combined with different case variants to function as nominal elements which play different sentential constituents.

This paper recognizes those VN structures as syntactic nominalization from the functional and cognitive perspectives. To explore what features contribute to the “nominalizing” process of the VN structure, this paper will focus on the nominal and verbal properties of the VN structure. In addition to describing what configurations of the three types of syntactic nominalization in Mongolian are, the second aim of this paper is to interpret the generative mechanism of the three types of syntactic nominalization from the functional and cognitive perspectives. While VNs in traditional descriptions of Mongolian are described in terms of their morphological properties or meanings, this study demonstrates that the functional and cognitive approach is essential for the description of the Mongolian syntactic nominalization – that is, the point of departure that is adopted is the strata of lexicogrammar and semantics, with cognitive mechanism taken into account, which enables us not only to recognize the panorama of the properties of the Mongolian syntactic nominalization, but also to understand how the nominalized structures with the presence of VN change from process to thing. More importantly, it provides a full explanation for the self-contradictory account in traditional approach concerning the definition of VNs and the nominal and verbal properties of VNs (see section 2).

The structure of the paper is as follows. In Sect. 2, we provide a quick overview of the previous studies on the VNs in Mongolian and discuss their problems. In Sect. 3, we will introduce the basic features of syntactic nominalization in Mongolian, including the definition of syntactic nominalization, the dual nature of syntactic nominalization, i.e. nominal and verbal properties, and the classification of Mongolian syntactic nominalization. To interpret the unique characteristics with respect to the semantics, lexicogrammar and pragmatics, we put forward the generative framework of the Mongolian syntactic nominalization in Sect. 4, and in Sect. 5 we analyze the generative mechanism of the three types of syntactic nominalization in Mongolian. Finally, Sect. 6 concludes the paper, suggesting some further studies necessary to support our arguments and/or assumptions in this paper.

2. Overview of Relevant Research

The syntactic nominalization in the traditional Mongolian grammar is generally called the embedding sentence (Qinggertei [31], Tetuke [34]), complex sentence (Luobusangwangdan [26], Hsiao [19]), indefinite form (Todd [36]), verb concurrent form (Daobu [5]) and adjective verb (see Hou, Wanzhuang [18]), etc. The Mongolian grammarians of the former Soviet Union Sansiyev, Bertegaev and others claim that there are only adjective verb and adverbial verb, but no subordinate clause in Mongolian, and deny the view that there is a subject-subordinate complex sentence in Mongolian (Hou, Wanzhuang [18]). Todd [36] and Bai, Mengxuan [1] suggest that the Mongolian adjective verb *qu/kü* has a fairly solid correspondence with the English infinitive. Bolcholu [3] denies this view and claims that the view that the Mongolian language has infinitives does not conform to the reality of the Mongolian language, and how to name adjective verb in terms of “tense” needs further discussion. Traditional Mongolian grammar has different views on the structural analysis of the Mongolian VN, the reason of which could be boiled down to the fact that VN is generally considered to be a special form of the verb, with both verbal and nominal properties (Qinggertei [31]). Its verbal property is embodied by its domination of nouns and pronouns with different case variations, such as *Dorji* (NOM) in (1) and *Dorji-yin* (GEN) in (2), etc.; Its verbal property is manifested by its use with different case variants, postpositions and temporal-positional words, such as ACC (-i) in (1) and (2), and 3POSS (*ni*) in (3). However, this explanation is self-contradictory. For example, the VN in (2) *abuysan* (buy-VN) possesses nominal property and thus it can be followed by ACC (-i); Meanwhile, it also has verbal property and dominates the preceding Object *nom* (book). In other words, while it is dominating Object, it can also act as Object of the other Predicate. There is a contradiction that Object in traditional grammar is generally defined as the receiver or patient of the action, and thus there is no linguistic phenomenon that the word with nominal property can dominate Object.

In addition, Predicate verbs in English are generally divided into finite and non-finite verbs. However, Mongolian verbs cannot be investigated in terms of finiteness, which is attributed to the fact that all Predicate verbs in Mongolian are “non-finite” with respect to “person” and “number” (Bolcholu [3]). In other words, Mongolian is unmarked for person/number agreement. For instance:

bi(I) bida(we)	} yabuna (know)
či (you) ta(you)	
tere(he/she) tede(they)	
	} medene (forget)

Besides, Hou, Wanzhuang [18] also claims that, unlike English, Mongolian does not have relative pronoun specially to connect the main clause and the subordinate clause. Instead, it mainly depends on the morphological change of the Predicate in the subordinate clause itself or the collocation of the Predicate in the subordinate clause and certain postpositions to connect the main clause and the subordinate

clause. It therefore depends to a large extent on the analysis of meaning to determine whether it is a subordinate clause or not. Moreover, the VN endowed with different case variants can serve as different sentential components. Therefore, according to different case variants, the NV structures may correspond to that-clause, gerund form, infinitive form, preposition structure and so on.

Based on the theory of generative grammar, Gao, Lianhua [6] argues that the NV used as attribute is called ADJL phrase, in which the NV suffix is the nominalizing form of the entire phrase instead of the single verb. Hale [9] discusses the key features of the Dagur objective relative and argues that the nominal property of these clauses is attributed to their selection by a nominal head. Those previous analyses on relative clauses bring some enlightenment to the current study. Although this interpretation on the structure of NV is clearly hierarchical, it focuses only on the grammar based on vocabulary, and emphasizes grammatical rules, but ignores semantics. However, nominalization is not only influenced by syntax, but also constrained by semantics (Yang, Zhou, Xiong, Zhongru [38]). Therefore, its explanation is obviously not convincing enough. For instance, according to the explanation of generative grammar, *Dorji-yin ene nom-i abuysan-i* in (2) will obtain the meaning “Dorji’s buying the book”, which is obviously not in line with its actual meaning.

In short, previous studies often start from the perspective of form, meaning or function, which can not gain a deep insight into the essential characteristics of the grammatical structure. In view of this, a generative framework for syntactic nominalization is going to be proposed in the following section from the perspective of functional and cognitive perspective, employing the theories of rank-shift, reanalysis, analogy and coercion, etc. to analyze and discuss the generation process of the syntactic nominalization in Mongolian.

3. The Basic Features of Syntactic Nominalization in Mongolian

3.1. Syntactic Nominalization

In systemic functional linguistics (SFL), the phenomenon that a non-nominal word is converted to a noun for the sake of expression in different context is called nominalization. Nominalization is the single most powerful source of grammatical metaphor (Halliday [11]). From semantic perspective, nominalization is a change from congruence to non-congruence (i.e. metaphorical form). Thompson [37] proposes that “congruence” refers to an expression of “a state of affairs closer to the outside world”. However, when the lexico-grammatical form is not used to express the meaning normally expressed, this form of expression constitutes the metaphorical form. The verb or clause which expresses a specific action or state can be transformed to indicate the meaning of abstract thingness by way of nominalizing.

From the perspective of lexicogrammar, nominalization generally realized by means of transcategorization and

rank-shift. According to SFL, transcategorization can be divided into four types, namely, thing-oriented, quality-oriented, process-oriented and circumstance-oriented. Among them, thing-oriented transcategorization are further divided into five types, namely, (1) quality → entity; (2) process → entity; (3) circumstance → entity; (4) relator → entity; (5) (Ø) → entity (Halliday, Matthiessen [12]). This study mainly deals with nominalization with respect to the transfer from process to entity, which involves lexical nominalization and syntactic nominalization. Lexical nominalization is mainly realized by the following two ways, (1) verb can be used directly as a noun without any changes in form, such as the noun “attack” in the phrase “the enemy’s attack of the city”; (2) adding word-forming affix to a verb to get a corresponding noun expression, such as “operate-->operation”, “commit -->commitment”.

Syntactic nominalization may occur at different linguistic levels, which is realized by rank-shift. SFL holds that in the specific context, people can use clause and phrase/group to express the meaning of clause complex, or use word and phrase/group to express the meaning of clause, so as to produce different types of rank shift, namely, clause complex --> clause, clause complex --> phrase/group, and clause --> phrase/group. Rank-shift works in both directions, downgrading and upgrading, and downgrading is very common. In the process of clause complex downgrading to clause, that-clause and what-clause play the role of nominals. The downgrading from clause to phrase/group can be embodied as gerund and infinitive phrase, which also realizes the transfer from process to entity, such as “Climbing mountains is really fun”, and “His job is to clean all the windows”. Nominalization occurs after the verb is combined with the object instead of the verb itself. The verb here is not only endowed with nominal property but also possesses certain verbal attributes and can be modified by adverb. Whereas this way of nominalization does not add new words to the lexicon, instead, it is only a way of realizing nominalization on syntactic level, which is called syntactic nominalization.

To sum up, nominalization can be divided into lexical nominalization and syntactic nominalization according to the mechanism of grammatical evolution. Lexical nominalization mainly refers to the transcategorization from verb to noun in the same linguistic level. The syntactic nominalization generally include three types, that-clause, v-ing gerund and “to do” infinitive structure, which can be realized by means of rank-shift. For instance, clause downgrade to v-ing gerund. However, lexical nominalization may also derived from the process of rank-shift. For example, in the rank shift from the finite clause “The PRC was founded in 1949” to nominal group “The foundation of the PRC in 1949”, the predicate “(was) found(ed)” is transferred into the corresponding noun “foundation”.

3.2. Mongolian Syntactic Nominalization

Due to the space limitation, the following discussion centers around the Mongolian syntactic nominalization

realized by rank-shift by means of adding the VN suffixes to a verb stem, in which the arguments can be marked with nominative case or genitive case and sometimes the arguments can be completely missing, as is shown in the examples (1), (2) and (3) in section 1. The Mongolian syntactic nominals can be productively formed, and almost every sentence can be transferred into a syntactic nominal counterpart. For instance, the syntactic nominals in (1), (2) can be regarded as nominalized versions of the clause in (4).

(4) *Dorji ene nom-i abu-jai.*

Dorji this book-ACC buy-PT

(Dorji bought this book.)

VN plays an important role in Mongolian syntactic nominalization. According to traditional grammar, VN represents not only behavior or action, but also quality or characteristics of things (including the quality and characteristics of indicating behavior and action), so it obtains the properties of both verb and adjective (Qinggeltei [31]). There are three kinds of typical VN suffixes, namely, *-γsan/gsen*, *-qu/kü*, *-day/deg*³ in modern Mongolian (Qinggeltei [31]). The VN structure in Mongolian no longer expresses a specific action or state, but it is transformed to indicate the meaning of abstract thingness. In other words, the endings also appears to have a “nominalizing” function. Furthermore, this way of nominalization realized by means of rank shift does not add new words to the Mongolian lexicon, instead it is only a way of realizing nominalization on syntactic level, which, therefore, is called Moganlian syntactic nominalization. One of the features that stands out is that, with the syndrome of grammatical metaphors, the Moganlian syntactic nominalization display both the verbal properties and the nominal properties, which will be illustrated in detail in the following section.

3.3. Dual Nature of Syntactic Nominalization in Mongolian

Matthiessen [28] and Halliday, Matthiessen [12] hold that nominalization is primarily viewed as a resource for reconstruing the speaker's experience in a nominal way. In other words, the constructions with a clause-like component or even with all the characteristics of a full clause can be considered to be nominalized (Heyvaert [14]). As Borsley, Kornfilt [4] analyze, nominal properties of a nominalization are contributed by a nominal functional projection; above that projection the structure has nominal properties, below it, verbal properties. The Mongolian Syntactic nominalization derived by adding the VN suffixes to the verb stem, on the one hand, share some properties of lexically derived nominals. On the other hand, they are internally comprised of various syntactic components which are dominated by the VN. In what follows, a full-scale investigation of both nominal and

clausal properties will be undertaken.

3.3.1. Nominal Properties

The Mongolian syntactic nominals share some common properties with ordinary lexical nominals. Lexical nominals, which are usually assumed to be listed in the lexicon, are derived from primary verbs⁴, as exemplified in (5) (see Poppe [30]).

(5) *domdadu ulus-un čilugelelte*

China-GEN liberation

(the liberation of China)

The Mongolian syntactic nominals exhibit nominal properties both internally and externally. In light of the internal nominal property, the arguments-both subject and object - are key factors that need to be considered. In the first place, the subjects in syntactic nominals, just like those of lexical nominals (see (6)), can be marked with genitive case, just like the lexical nominals.

(6) *suruyči-yin nom-i ungši-γsan*

student-GEN book-ACC read-VN

(the student's reading the book)

Moreover, the object in Mongolian syntactic nominals can also be marked by other nominal cases, such as nominative case, accusative case, dative case, or instrument case etc. (see (7)), which is not allowed in lexical nominal (see (8)).

(7) a. *suruyči nom-i ungši-γsan*

student book-ACC read-VN

(the student's reading the book)

b. *olan -dū saišiya-γda-qu*

many-DAT praise-passive-VN

(being praised by everyone)

c. *čim-a-bar ungši-γul-qu*

you-INS read-causative-VN

(making you to read)

(8) a. **suruyči-yin nom-i ungšilga*

student-GEN book-ACC reading

the student's reading the book

b. **olan -dū saišiyal*

many-DAT praise (n.)

(praise from everyone)

c. **čim-a-bar ungšilga*

you-INS reading

(making you to read)

It was not always the case that the subject of the syntactic nominalization appears in the form of the nominative case and genitive case. The accusative case somehow can sometimes be endowed with the pronominal subject, as is shown in (9), even though it is frequently replaced by the former two nominal cases.

(9) *nada-yi oči-qu-du tere kümün yabu-γsan bai-jai.*

I ACC go-NV-DAT that man leave-NV Auxiliary-PT.

(That man had left when I was going.)

Second, another similarity between the syntactic nominals and lexical nominals is that the arguments can be dropped

3 *-γsan/gsen*, *-qu/kü*, *-day/deg*, each pair are two different forms of phonetic variants according to vowel harmony. *-γsan/gsen* indicate both absolute past and relative past (followed by auxiliary to show absolute past); *-qu/kü* indicate absolute or relative future and usually are followed by modal particles and auxiliaries to end a sentence; *-day/deg* is generally used with present tense to indicate the regularity and habit of action. In addition, there are also some verbal nominal suffixes, such as *-γa/ge*, *-mar/mer*, *γuštai/güšitei*, etc., which are less used (see Qinggeltei [31]).

4 From morphological perspective, all words can be classified into two types, the primary stem, which can not be further broken down and the secondary stem, which is derived from primary stem by means of suffixes (Poppe [30]).

freely, which is illustrated in the following examples.

(10) a. *suruγči-yin ungši-γsan*

student-GEN read-VN

(students' reading)

b. *nom-i ungši-γsan*

book-ACC read-VN

(reading books)

(11) a. *jalaγučud-un surulčalγa*

youngsters-GEN study

(youngsters' study)

b. *domdadu ulus-un čilugelele*

China-GEN liberation

(The liberation of China)

In view of the external properties of the syntactic nominals, like the lexical nominals, they can be followed by various case markers, pronominal possessions, subject markers, postpositions or Ø form, etc., acting as different sentence components, including object, subject, attribute and adverbial.

(12) a. *čini inggiγū yoso ügei ayašila-qu*

you-GEN such reason no lose temper-VN

čini tayara-qu ügei.

2POSS fit no

(It's wrong of you to be so unreasonable.)

b. *ta nar-un man-i tusala-γsan-du*

you-plural-GEN we-ACC help-VN-DAT

bide talarhaju bain-a.

we-NOM appreciate auxialry

(We appreciate your helping us.)

The illustrations above prove that the Mongolian syntactic nominals which are the nominalized versions of clauses, can take on similar nominal features like lexical nominals. Moreover, there are also some particular characteristics with respect to the case makers of the arguments.

3.3.2. Verbal Properties

Compared with lexical nominals, the Mongolian syntactic nominals manifest extra clausal properties in the following aspects. First of all, syntactic nominals are created in the syntax regarding lexicogrammatical level and semantic level. Almost every sentences can be transferred into their corresponding syntactic nominals, in which tense can also be indicated by the VN suffixes, and the meaning is easy to predict from the meanings of the components. Take (10) as an example. The VN suffix *-γsan* indicates the past tense and the syntactic nominal only has the literal meaning "the student's reading the book", which is predictable from the meaning of the sentential components. In contrast, lexical nominals are less productive due to the fact that lexical nominals can not always be obtained by means of adding derivative suffixes. In addition, the meanings are sometimes conventional and different from their counterparts that the lexical nominals are derived from. For example, *baiγul-* (construct v.) → *baiγululγa* (institution) and *aγil-* (work v.) → *aγillaya* (activity).

Secondly, passive, causative, reciprocal, co-operative or plural forms can be expressed in syntactic nominals, and even a complex form, such as the combination of passive and causative morphemes, is possible. For instance,

(13) a. *olan bügiide tusala-qu*

every one help-VN

(everyone helping)

b. *olan bügiide tusala-lča-qu*

every one help-Reciprocal-VN

(every one helping each other)

c. *olan bügiide-dü tusala-γul-(u)lča-qu*

Every one-DAT help-Causative-Reciprocal-VN

(making everyone to help each other)

However, this feature is seldom allowed in the lexical nominals, hence the lexical nominal *tusalalča* (help n.) does not have its corresponding causative form **tusalalčam* (causing to help). Unless those lexical verbs with the passive, causative or co-operative form etc. have been registered as lexical items in the lexicon, the derived lexical nominals are possible and are also registered as lexical items in the lexicon. For example, *sur-(u)lča-* (study- co-operative "study together" v.) → *sur-(u)lča-lγa* (studying together n.); *tani-lča-γul-* (know-co-operative-causative "introduce" v.) - *tani-lča-γul-γa* (introduction n.).

Additionally, the syntactic nominals are capable of functioning as a independent clause with or without modal particles or auxiliaries which are mainly used to follow the nominal Predicate (see Qingertei [31]). For instance,

(14) a. *teγün-i tölögelegči-ber songyo-γsan šiu.*

he-ACC representative-INS elect-VN MP

(He was chosen as the representative.)

b. *tere erte bos-day.*

he-NOM early get up-VN

(He always gets up early.)

Example (14) indicates that Mongolian syntactic nominals not only share the dual nature of nominal and verbal properties, both internally and externally, but also the combination of the dual features.

To sum up, the key features of the Mongolian syntactic nominalization are (a) the subject of the syntactic nominals can be in nominative case, genitive case or accusative case (sometimes endowed with pronominal subjects); (b) VNs in the structure are generally marked with nominal clitics to act as Participants or Circumstances. However, when they are used to modify head nouns, the nominal clitics are not specially required; (c) the syntactic nominals which allow for the various forms of voice, aspect, mood, etc., generally follow the sequence of the clausal constituents, except for its modifying function which is in typical head-final fashion; (d) VN can appear with the absence of subject, indicating the meaning of general reference. The nominal properties prove that in Mongolian there also exist clausal constructions that can drift towards thingness. Due to its formation in syntax, the Mongolian syntactic nominalization possesses some peculiar features which are different from lexical nominalization. Given the discussion above, the three basic types of syntactic nominalization will be interpreted as follows.

3.4. Classification of Syntactic Nominalization in Mongolian

Due to the lack of person/ number marking, an overt

complementizer or a relative pronoun introducing nominalized clauses (see section 2), Mongolian syntactic nominalization cannot be classified according to the types of English and Chinese syntactic nominalization. As Kornfilt, Whitman notes [22], nominalized clauses can differ in terms of properties, including the case of the subject, the case of the (direct) object, or whether the nominalized predicate can be modified by adverbs or adjectives. The Mongolian syntactic nominalization is mainly differentiated by the use of Subject. According to the previous studies on the nominalized clauses in Turkish and in Japanese, Mongolian syntactic nominalization are in partial accord with Turkish in that they both have nominal as well as verbal inflectional heads, which can be Subject case, i.e. genuine subject case, default case and case-less, licensed within the clause (Kornfilt [21]). In contrast, Japanese, however, needs a external nominal head of clauses, such as *kata* (way), to license a Genitive subject case (Hideki [16]). Therefore, in light of the unique features of the Mongolian Subject case in nominalized clauses, the Mongolian syntactic nominalization can be divided into the following three categories:

A. Nominative Case-Marked Subject Nominalization,
noun+verb → noun+adjective verb+case⁵ (grammar);
clause → thing (semantics)

(15) *či qari-yad ire-gsen čini sain bol-jai.*

you return-CVB come-VN 2POSS good become-PT
(It was good you came back.)

B. Genitive Case-Marked Subject Nominalization,
noun+verb → ~“GEN”+adjective verb+case (grammar);
clause → thing (semantics)

(16) *tere kümün-ü yabu-γsan-i bi mede-gsen ügei.*

that man-GEN go-VN-ACC I know--VN NEG
(I knew that man left.)

C. Subject-Missing Nominalization,
noun+verb → adjective verb+case (grammar);
clause → thing (semantics)

(17) *tere begejing-dü yadayadu kele sur-qu-bar oči-jai.*

He Beijing-DAT foreign language study-INS go-PT
(He went to Beijing to study foreign language.)

In the first nominative case-marked subject nominalization, a complete clause is transferred to nominal element with the VN suffixes (such as *-gsen*) and the case variants (such as 2 POSS *čini*). Additionally, the subject is in NOM case (e.g. *či*). Even if the subject is missing, it can be understood as referring to some specific entity that is identifiable by context; As to the second type of genitive case-marked subject nominalization, it is an intermediate between a verb and a full clause. It shares some similarities with the first type, while the difference is that Actor appears in the form of GEN case (e.g. *tere kümün-ü*) instead of NOM case; In the third type of subject-missing nominalization, it is the structure that has been transcategorized from verb with a general reference to a nominal. The missing argument of the nominal does not refer to any specific entity recoverable

from the context. The verb is always added with the VN suffixes (e.g. *-qu*) and various case variants (e.g. 3 POSS *ni*), which is similar to the infinitive structure in English. Then how the semantics of such structures are constructed through the use of words and their linguistic forms, and the cognitive mechanism behind them will be investigated in the following two sections.

4. The Generation of Mongolian Syntactic Nominolization

4.1. The Feasibility from the Functional-Cognitive Perspective

SFL and cognitive linguistics (hereafter CL) are fellow travelers in terms of the exploration of cognition and meaning (Hu, Zhuanglin [20]). In other words, they are compatible in semantic relationship (Tang, Qingye [33]). First of all, According to the degree of consistency in wording, Halliday [10] holds that the different lexical and grammatical forms expressing the same meaning can be divided into congruent form and metaphorical form. It is noted that regarding any semantic configuration, there is at least one lexico-grammatical form of expression that is congruent, and other forms are derived by some kind of transfer, which are therefore metaphorical. The concept of grammatical metaphor is thus put forward. Moreover, Halliday, Matthiessen [12] advocate that the relationship between congruent form and metaphorical form can be explained from the perspective of semogenesis, which mainly includes three time frameworks, namely, phylogenesis, ontogenesis and logogenesis. From the point of view of phylogenesis, the cognitive ability in the process of human evolution is also developing, and the means of communication are becoming more diversified. As a result, there are more and more new ways of construing human experience. The same meaning can be expressed in various ways, among which the earliest form is always the congruent form, and the forms that appear later are more metaphorical. This interpretation shows that, on the one hand, a complete history of semogenesis is the process of constant metaphoricalization and demetaphorization (Liu, Chengyu [24]), and on the other hand, there is a close relationship between grammatical metaphor and human cognitive development.

Secondly, semogenesis is the process of the generation and evolution of linguistic meaning. Due to the natural relationship between meaning and wording, semantic evolution is always reflected at the lexical-grammatical level, i.e. the process of semogenesis is always accompanied by grammaticalization. Grammaticalization refers to the process or phenomenon of the generation and formation of grammatical categories and grammatical elements. This illustrates hereby that it is feasible to explore the transcategorization from process to thing in grammatical metaphor from the perspective of grammaticalization.

Thirdly, according to construction grammar theory, construction is the basic mode of language representation

⁵ In this study, “case”, also known as “case variant form”, includes nominal case, POSS, postposition, subject marker “bol” and so on.

in the mind and the combination of form and meaning, namely, “form-meaning pairing” (Goldberg [8]). Grammar is composed of construction, which includes language units at all levels from concrete words to abstract sentence structures. Hence, metaphors as language symbols can be naturally regarded as construction (Martin [27]). Coercion is an important theoretical tool to solve and explain the conflict between the construction meaning and the lexical meaning.

Thus it can be seen that the grammatical metaphor theory, the theory of grammaticalization and the theory of coercion share a meeting point with respect to language meaning and form. Therefore, the theories of rank-shift, reanalysis, analogy and coercion are employed to make a further study on the generative mechanism of the syntactic nominalization in Mongolian.

4.2. Introduction of Reanalysis, Analogy and Coercion

Grammaticalization generally refers to the process or phenomenon of the generation and formation of grammatical categories and elements. The typical phenomenon of grammaticalization is the transfer from the words or structures with the concrete meaning to the grammatical elements which have no concrete meaning, but possess grammatical function, or from a grammatical element that is less empty to a more empty one, which is called “grammaticalization of nominal words” in Chinese traditional linguistics (Shen, Jiaxuan [32]). In light of the current research in the field of linguistics, the study of grammaticalization can be divided into three layers, narrow sense, broad sense and the broadest sense. In the narrow sense, grammaticalization refers especially to the lexical level, and the object of study includes the process or the phenomenon that notional words evolve into grammatical markers, grammatical categories, grammatical structures or idiomatic expressions. Grammaticalization from broad sense deals mainly with the textual or pragmatic aspects in terms of the process of how grammatical categories and grammatical elements being produced and formed in discourse and pragmatics. The broadest sense of grammaticalization is concerned with such questions as to how the conceptual structures and the event structures, etc. evolve into grammatical devices or constructions (Wang, Yan, Yan, Chensong [37]).

The basic generative mechanism of grammaticalization includes reanalysis and analogy (Hopper, Traugott [17]). Langacker [23] defines reanalysis as “change in the structure of an expression or the class of an expression that does not involve any immediate or intrinsic modification of its surface manifestation”. Furthermore, the change in the underlying structure mainly involves constituency, hierarchical structure, category labels, grammatical relations, and cohesion (type of boundary) (Harris, Campbell [13]). As far as the syntactic nominalization is concerned, when a clause complex is downgraded to a clause, or a clause is downgraded to a phrase, the grammatical status accordingly has also changed, acting as subject, object, attribute and other nominal sentential

components. In particular, even though the morphological structure of the clause does not change, the original dynamic process is reanalyzed as a static event. For example,

(18) *The man who wears a black suit is my boss.*

The clause *the man wears a black suit* in (18) first goes through information packaging, and then it is metaphorically downgraded to become a post modifier *who wears a black suit* of the noun phrase *the man*. The dynamic process in the original clause is reanalyzed as a static event.

As one of the important mechanisms of grammaticalization, analogy is mainly concerned with the induction and generalization of the pragmatic meaning and the grammatical meaning. Reanalysis changes the surface structure of the language, resulting in a sudden change in the syntactic rules; Analogy acts on the surface of language, which expands the scope of application of syntax. In other words, reanalysis acts horizontally on linear linguistic structures, while analogy acts vertically on the choices of various linguistic structures.

However, the realization of the grammatical function of a noun (such as Subject, Object or Attribute) by a clause is a mismatch between language form and the semantic function expressed. The way to solve the contradiction is “coercion”. Michaelis [29] proposes the “Principle of Coercion” (also called ‘Override Principle’), that is, if a lexical item is semantically incompatible with its morphological and syntactic context, the meaning of the lexical item confirms to the meaning of the structure in which it is embedded. According to this principle, when a word is superimposed or applied to a specific construction, and the meaning and the usage of the two are incompatible or in conflict, the construction is often in “dominant position” or “strong position”. It can compulsorily change the meaning and usage of words (mainly verbs, nouns, etc.) and force them to achieve coordination, so as to form “Construction Coercion” (Wang, Yin, Yan, Chensong [37]).

Goldberg [8] holds that “Constructions must specify in which ways verbs will combine with them, and they must also specify the way in which the event type designated by the verb is integrated into the event type designated by the construction”. In example (4), under the coercion of the construction “NP1 (subject) + LV (copula) + NP2 (predicative)”, the embedding clause *the man wears a black suit* compulsorily replace the Subject of the clause *the man* with the relative pronoun *who*, so as to integrate the clause into the whole construction and act as the attributive component in the construction. The change of the grammatical meaning leads to the meaning change of the clause.

4.3. A Generative Framework for Mongolian Syntactic Nominalization

Based on the above analysis and interpretation of syntactic nominalization from the perspective of functional and cognitive linguistics, a functional and cognitive generative framework of syntactic nominalization is attempted to be put forward in this section, as shown in Figure 1:

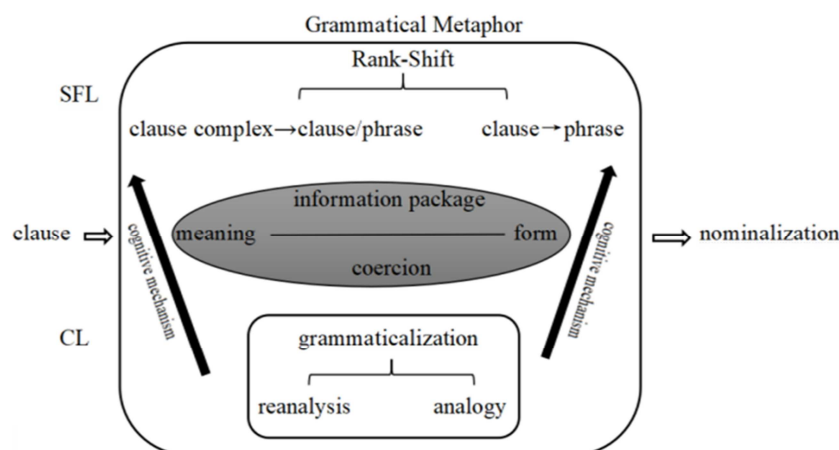


Figure 1. The Generative Framework of Syntactic Nominalization.

As shown in Figure 1, according to SFL, syntactic nominalization refers to the process of grammatical metaphor in which clause complex/clause goes through information packaging semantically and rank-shift (i.e. downgrading) to a clause/phrase. In Mongolian, the structures of adjective verb are endowed with different case variants (including postpositions, temporal-positional words, and POSS, etc.), acting as different syntactic elements. From cognitive perspective, syntactic nominalization is actually a process of grammaticalization. When people try to construe language, form and meaning are first reorganized in the process of rank-shift. In other words, the boundary between form and meaning structure is redefined. This psychological process is the typical feature of grammaticalization - “reanalysis”. The most common type of reanalysis is the merging of two adjacent components that are not originally a unit into a whole (Lu, Shuo, Pan, Haihua [25]); Secondly, as another feature of the grammaticalization, “analogy” makes the unobservable psychological process of reanalysis observable; Finally, in view of the mismatch between form and meaning in metaphorical constructions, the mechanism “coercion” is activated to realize the rematching of lexical meaning and structural meaning.

5. Functional-Cognitive Analysis of Mongolian Syntactic Nominalization

5.1. Nominative Case-Marked Subject Nominalization

(19) a. *Dorji ene nom-i abu-γsan-i bi sayi mede-le.*

Dorji this book-ACC buy-VN-ACC I just know-PT

(I just knew that Dorji bought the book.)

(Metaphorical)

b. *Dorji ene nom-i abu-γsan,*

Dorji this book-ACC buy-VN-ACC

bi sayi ene učir-i mede-le.

I just this thing-ACC know-PT

(I just knew that Dorji bought the book.)

(Congruent)

From the perspective of semogenesis, example (19b) which consists of two simple clauses and appears earlier, is

considered as the congruent form. In the process of semantic evolution, metaphorical form has gradually come into being. The former clause in (19b) first goes through information packaging. It is embedded into the latter clause by means of rank shift, and acts as Object. Halliday [11] proposes that the highlighted information or the phenomenon that new information in the clause is transferred to a new position is called information focus shift. In Mongolian, the unmarked information structure is “Rheme-Object (New information) + Theme-Subject (Known information)”. Therefore, in the process of nominalization, the whole information structure which is merged together and shifted to the position of Rheme becomes the information focus, namely, the fact known after *mede-le* (knew), so as to realize the purpose of influencing the listeners’ consciousness. From the perspective of the cognitive mechanism behind nominalization, the VN suffix *-gsen* at the end of the verb *abuγsan* (bought) is reanalyzed as the nominalized form of the whole clause *Dorji ene nom-i abuγsan* (Dorji bought the book). As a result, the clause is reanalyzed from a dynamic process to a static event. It is because of the static attribute of the Mongolian VN that makes the combination of the two simple clauses in (19b) possible.

However, there is a conflict between the form of the clause and its semantic function in the transfer from the clause as a whole to a nominal element. Coercion is the mechanism of reinterpreting the word items in order to eliminate this semantic conflict or repair the mismatching. It highlights the meaning that is consistent with the nominalization or adds compatible components to the word items by coercing or cutting off inconsistencies (Goldberg [8], Michaelis [29]). In (19a), we find that the Mongolian syntactic nominalization does not move the clause intact to the Object position in another clause. On the contrary, its syntactic form often changes, such as adding VN suffixes (such as *-γsan*) at the end of the verb, and merged with ACC case (*-i*), which is the result of changing its lexical usage under the function of coercion mechanism when the lexical meaning conflicts with the construction meaning.

(20) a. *sain čirmaiγsan-ača* (bolju)

Good work hard-VN-ABL (auxiliary)

amjilta oljai.

achievement obtain-PT

(As a result of good efforts, achievements have been made.) (Metaphorical)

b. (*bi*) *sain čirmaiγsan*, *eimü učir-ača*

(I) good work hard-VN therefore

(*bi*) *amjilta oljai*.

(I) achievement obtain-PT

(Because I worked hard, I made the achievement.) (Congruent)

Compared with the analysis of example (19), from the perspective of ontogenesis or logogenesis, (20b) appears likewise earlier than (20a), so (20b) is a congruent form and (20a) is a metaphorical form. Technically speaking, (20a) can be understood as the expression compressed from (20b). In other words, the clause (*bi*) *sain čirmaiγsan* (<I> worked hard) first undergoes information packaging and compressing, and downgrades to the nominalized structure *sain čirmaiγsan* (good efforts), with the information focus also shifted. In (20a), *bi* (I) which can be predicted easily from the context is omitted as a result of language economy principles. The suffixes *-γsan* at the end of the VN *čirmaiγsan* (worked hard) is reanalyzed as the nominalized form of the whole clause which functions as a nominalized element and is combined with ablative case marker *-ača* which indicates the relationship of cause and result. The syntactic nominalization acts as reason adverbial in (20b).

Due to the effect of analogy mechanism, *minü aqa emči bolqu-bar čimaiju baina* (My brother works hard to become a doctor), *tere kümün basa očiqu-yi bi sayi sonosba* (I just heard that the man went too) and other examples have a similar generative mechanism. Nominalized clauses, combined with different case variants, can act as subjects, objects, adverbials, appositions, etc. and play the role of nominal components.

5.2. Genitive Case-Marked Subject Nominalization

(21) *Dorji-yin ene nom-i abu-γsan-i*

Dorji-ACC this book-ACC buy-VN-ACC

bi sayi mede-le.

I just know-PT

(I just knew that Dorji bought the book.)

Example (21) is the metaphorical expression of the clause complex *Dorji ene nom-i abuγsan*, *bi sayi ene učir-i medele* (Dorji bought the book, and I know it). Semantically, (19a) emphasizes Subject *Dorji* (Dorji), while (21) emphasizes *nom-i abuγsan* (bought the book). The generation process of the genitive case-marked subject nominalization in (21) is similar to that in (19a), except for the different lexicogrammatical realization of Actor with GEN case *Dorji-yin* (Dorji-GEN) in (21). When the suffix *-γsan* at the end of the VN *abuγsan* (bought) is reanalyzed as the nominalized form of the whole clause *Dorji-yin ene nom-i abuqu* (Dorji bought the book), the GEN case *-yin* after the Actor *Dorji* (Dorji) no longer represents the function of the possessive attribute, but is reanalyzed as an Experiential Marker to identify the Actor (Zhang, Dongbing [39]). Accordingly, *Dorji-yin ene nom-i abuγsan* under the effect of coercion mechanism can be understood semantically as “Dorji

bought a book” instead of “Dorji’s bought the book”. Moreover, ACC case (*-i*) is inserted after the GEN nominalization in order to make it rematch with the construction meaning of the whole clause.

5.3. Subject-Missing Nominalization

(22) *baičayalta ki-kü bol darui asaγudal-i*

investigation do-VN subject-marker problem-ACC

šiidbürile-kü kereg mön.

solve-ADJV thing MP

(To investigate is to solve problem.)

baičayalta kikü (to investigate) in (22) is a general reference to an action, which is equivalent to the infinitive structure in English. Halliday [10] holds that in the process of nominalization that transforms process into nominal phrases, the subject is always hidden. Its logical subject exists in a self-evident context, which may be “you”, “I” and “he” and so on. From the perspective of semogenesis, at the initial stage of semantic development, *baičayalta kikü* (to investigate) indicates the concept of an action. Later, after the information packaging, it is embedded into the clause as Subject to form a metaphorical form. The VN suffix (*-kü*) is reanalyzed as the nominalized form of the phrase *baičayalta kikü* (to investigate), and it is reanalyzed from the dynamic process to the static event. Due to the coercion of the relational process construction “NP1 (Subject) + NP2 (Predicate) + AMP (Affirmative Modal Particle)”, the nominalized structure *baičayalta kikü* (to investigate) is used as Subject in the clause, followed by the postposition “BOL” which possesses the function of marking Subject, so as to rematch it with the meaning of the construction. The syntactic nominalization with the similar generative mechanism includes *surulčaqu ni čiqula* (learning is important), *baičayaγsan ügei bol üge kelekü erke ügei* (No investigation, no voice) and *medegsen goina* (after knowing), etc.

To sum up, the generation process of the three types of syntactic nominalization in Mongolian shares both similarities and differences. Primarily, they are realized through rank-shift. In addition, the VN suffixes are no longer the nominalized form of a single verb but that of the whole phrase or clause, and the dynamic process is reanalyzed as a static event. The analogy mechanism makes the nominalization structure have the syntactic function which is similar to the noun, and makes the different VN suffixes reflect different tense and aspect meanings. The nominalization structures are followed by different case variants to act as different sentence components (such as Subject, Object, Adverbial, etc.). Coercion mechanism plays different roles in both lexicogrammatical and semantic levels of the syntactic nominalization.

6. Conclusion

The morphological changes of Mongolian verbs are complex and diverse. With respect to the suffixes of the Mongolian verbs, VN occupies a very important position. In previous studies, traditional grammar and transformational generative grammar have not made a clear and reasonable

explanation as to the definition of VN and how the nominalized structures with the presence of VNs change from process to thing. In this paper, I have argue that the constructions with VN suffixes can be viewed as syntactic nominalization instead of simply defining as subordinate clauses or phrase in traditional descriptive grammar. First, it has demonstrated that the nominal properties shown by the Mongolian syntactic nominalization, like lexical nominalization, are responsible for the fact that the process has been transfer into an static event. It is also noted that the high productivity and almost all the verbal features of clausal predicates in the Mongolian syntactic nominalization has been attributed to the “nominalizing” of the VN structure as a whole. Secondly, we have proposed that there are three typical categories of syntactic nominalization in Mongolian. The subject existence and the case of the subject are the key factors of the classification. Even though there also exists the subject with accusative case, its absence in the classification is claimed to be due to its limited use and free alternation with the other two nominal cases, i.e. NOM and GEN.

The main argument of the current paper is that the generation mechanism of syntactic nominalization regarding the levels of lexicogrammar and semantics can be interpreted from the perspectives of SFL and CL. According to SFL, The phenomenon that a non-nominal is converted into a nominal due to the need of expression is called grammatical metaphor. Halliday’s SFL Theory has long been criticized because it pays less attention to the cognitive field. Through comparing the concept of grammatical metaphor in SFL and the grammaticalization and construction gramma theory in CL, we find that they have a meeting point in the historical evolution of language form and meaning. We therefore try to put forward the functional cognitive framework for the generation of the syntactic nominalization and give a systematic and in-depth description and interpretation regarding the generative mechanism of the three types of Mongolian syntactic nominalization. All in all, the research shows that the study of nominalization from these two perspectives may be an effective way to reveal the characteristics of human language and thinking, but whether it is universally applicable to various types of languages remains to be further investigated.

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