

# A Study of Nominalization in the Abstracts of Linguistic Academic Papers

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## Abstract

Nominalization is widely used in the linguistic academic papers and it has the potential to transform a complex sentence into a concise one, while abstracts in the linguistic papers are the condensation of the main content, so it is of great significance to analyze the phenomenon of nominalization in the abstracts of linguistic academic papers. Based on the theory of grammatical metaphor, this paper attempts to figure out whether the five types of nominalization proposed by Halliday exist and further analyze which kind of function they perform. 40 academic papers will be collected, the five types of nominalization will be identified and their frequency will be quantified. Finally, the detailed analysis about their functions will be made. After the analysis of the data, the author found that verb nominalization is used most frequently, while proposition nominalization is relatively rare. And nominalization in the abstracts can serve several functions: adjective nominalization and verb nominalization can reflect the objective facts without personal attitudes and stance; conjunction nominalization can make the abstracts more concise. The purpose of this paper is to illustrate different types of nominalization and their functions existing in the abstracts, and to promote authors' awareness of nominalization and improve their abstract writing ability.

**Keywords:** nominalization, abstracts, linguistic papers

## 1. Introduction

Halliday (1985) firstly came up with the idea of grammatical metaphor in his book *An Introduction to Grammatical Metaphor*. He (1985, p. 320) proposed that "grammatical metaphor refers to the expression of a meaning through a lexicogrammatical form which originally evolved to express a different kind of meaning". And he added that nominalization is the important resource for creating grammatical metaphor (Halliday, 1994). Nominalization can perform various functions, so they have drawn the attention of many scholars. Thompson (2014, p. 228) holds that "one important function of nominalization is encapsulation, and by 'nouncing' a process, writers can reflect the fact that they have negotiated and establish the meaning of the clause centered on the process". Abstract is a short discourse that concisely and accurately describes the important contents of a passage without comments and supplementary explanations. Nominalization can condense complex clauses into nouns or noun phrases to make the sentences more concise, so it is assumed that nominalization can satisfy the requirements of linguistic academic papers. Therefore, on the theoretical basis of grammatical metaphor, this paper attempts to analyze adjective, verb, circumstance and conjunction nominalization in the abstracts. In this research, both qualitative and quantitative analysis were carried out to figure out the use of nominalization in the abstracts of linguistic academic papers. The qualitative analysis aimed at describing various functions of the use of nominalization in the abstracts. The quantitative analysis aimed at figuring out the distribution of nominal expressions. In the first stage, the instances of nominalization will be identified, classified and quantified by using AntConc software and manual selection. In the second stage, technical terms will be ruled out. Finally, during the process of analyzing the function of nominalization, the frequency of each nominalization will be figured out. The author concludes that having a good command of the characteristics of nominalization is helpful to compose an English abstract.

## 2. Literature Review

The use of nominalization has been widely discussed in current academic studies and has drawn the attention of many schools. Nominalization in systemic functional linguistics (SFL) mainly focuses on the study of scientific

discourse. Halliday (1985) believed nominalization is the important resource for creating grammatical metaphor, which helps to construct experience in scientific discourse, making it more professional and reasonable. Pan (2012) concludes that there are four common structures of nominalization in scientific texts: set collocation of behavioral noun+ verbal phrase, preposition + behavioral noun, natural noun + behavioral noun and behavioral noun + of. Ryshina-Pankova (2015) maintains that SFL can systematically connect meanings, wordings and contexts. Taken as one of the forms of grammatical metaphor, nominalization can be used to improve the complexity of the linguistic form. Wang (2016) holds that nominalization is more professional and rational in textual instantiation. Nominalization can make conceptual knowledge become more professional, make the content of the text more orderly and strengthen the interpersonal interaction of discourse. At present, a large number of scholars focus on the study of Nominalization in scientific and technological papers, but less on the abstracts of linguistic papers. Therefore, this paper will use a combination of quantitative and qualitative methods to resolve the following questions: Do the five types of nominalization proposed by Halliday exist in the abstracts of linguistic academic papers? What are the main functions of nominalization in the abstracts of linguistic academic papers?

### 3. Theoretical Framework

Systemic functional linguistics unpacks writing as a meaning-making process (Halliday, 1994). Systemists concentrate on the role that a language's grammar plays in creating and exchanging meaning. Halliday (1994) suggested that there are three meanings at the level of meaning construction: the ideational meaning, the interpersonal meaning, and the textual meaning. Ideational meaning is a meaning that has a relationship with a phenomenon including thing, event and circumstance surrounding. It is usually represented by participants, process, and circumstance. In other words, ideational meaning can be used to make reflection of the world that uses transitivity systems as the whole grammatical source for interpreting the event. From Thompson's perspective, "transitivity analysis provides one rule of thumb for the recognition of grammatical metaphor. If a transitivity analysis does not seem to reflect adequately the state of affairs being referred to, it is very likely that the meaning is being expressed metaphorically" (2014, p. 240). The following examples will illustrate this point. In sentence 1), the two clauses are realized in a congruent relationship, connected by the relator '*because*'. Specifically, the participants (*people, the King*) are expressed congruently in the lexico-grammar as nominal group, the process '*fear*' is expressed congruently as verb and the adverbial group '*more strongly*' congruently realizes circumstance. However, these same meanings can be realized incongruently as well. For example, '*the King is ailing*' in sentence 1) can be reconstrued as a circumstance: '*due to the ailment of the King*' in sentence 2) and the logical relator, '*because*', can be construed metaphorically as a verbal group '*mount for*' in sentence 3). In this construal, the attribute '*ailing*' is modified metaphorically to a nominalization '*ailment*'. The process, '*fear*' in sentence 1) and 2), is realized as a nominalization '*fears*' in the sentence 3). What's more, the relator '*because*' in sentence 1) and the logical circumstance in sentence 2) can be realized as a nominalization '*reason*' in sentence 4).

- 1) People fear more strongly because the King is ailing.
- 2) Due to the ailment of the King, people fear more strongly.
- 3) Fears mount for ailing King.
- 4) The reason for people's fear is the ailment of the King.

As evident from the aforementioned examples, grammatical metaphor uses one grammatical category or grammatical structure to substitute another grammatical category or grammatical structure rather than merely substituting one word for another (Halliday, 1994). People can use congruent and incongruent form to express the same meaning. The congruent form is the typical way of saying things, while the incongruent form is not the typical representation of things. According to Halliday and Matthews (2000), "the most effective tool for developing grammatical metaphor is nominalization. Nominalization is a process in which any kind of part of speech, such as verb or adjective, is evolved into a noun or syntactic unit that can act as a noun phrase". In other words, the classification of nominalization can be discussed from the point of the lexical and syntactic levels. On the lexical level, nominalization can be achieved by adding derivative affixes, so that verbs and adjectives can be transformed into nouns. On the syntactic level, nominalization can be derived from turning verb structures into noun phrases and nominalized clauses. Halliday and Matthiessen (1994) came up with 13 types of grammatical metaphors, five of which belong to nominalization, namely, nominalization of quality; nominalization of process; nominalization of circumstance; nominalization of relator; from null to lexically empty nouns.

Table 1. Classification of nominalization

Semantic functions	grammatical class	Examples
quality → entity	adjective → noun	<i>ailing</i> → <i>ailment</i>
process → entity	verb → noun	<i>fear</i> → <i>fears</i>
circumstance → entity	preposition → noun	<i>due to</i> → <i>reason</i>
relator → entity	conjunction → noun	<i>because</i> → <i>reason</i>
(zero) → entity		→ <i>the problem</i>

Nominalization is widely used in academic papers because it can serve several functions (Tompson, 2014). Firstly, one important function of nominalization is encapsulation. After encapsulating, a nominalization serves as the starting point for the next or a later clause so that the whole sentences can be rearranged. Secondly, by using nominalization, the processes can be depersonalized. In other words, when utilizing nominalized meanings to demonstrate conclusions or insights, it is not necessary to specify who the actual interpreter is. Finally, since nominalized processes are not connected to any particular time in respect to the moment of speech, they cannot be finite. In this way, writers can establish universal facts unrelated to particular instances of time or observers.

#### 4. Methodology

In this section, 40 papers, containing 8547 words, are chosen from Web of Science concerned with linguistics papers, which cover different topics, such as applied linguistics and systemic functional linguistics. According to Ramanathan and Kaplan (2000), genres are dynamic and likely to be temporal, so all the papers downloaded were published in the last five years (2017–2022).

##### 4.1 Data Collection

In the first stage, the instances of nominalization are identified, classified and quantified by using AntConc software and manual selection. On the one hand, the researcher needs to read the abstracts carefully. Halliday and Matthiessen (1999) pointed out that all the occurrences of nominalization are extracted manually. Examining the suffixes of the noun is one of the ways to distinguish whether it is nominalization. For example, the metaphorical process ‘*understanding*’ derives from the congruent process ‘*understand*’ by using the derivational suffix ‘-ing’. Another way is to figure out whether there is a corresponding congruent form in the noun. For example, the word ‘*perception*’ can be transformed into a verb ‘*perceive*’.

In the second stage, it is essential to make clear what is grammatical metaphor and what are technical terms. For instance, the word ‘*recovery and reaction*’ in sentence 5) and sentence 6) can not be regarded as the process of recovering and reacting something and they cannot be transformed into a congruent form. Therefore, technical terms, such as ‘*recovery technology*’, are not considered as grammatical metaphor and are excluded.

5) The driving technology of tertiary oil recovery is a higher-level oil recovery technology....

6) Tertiary oil recovery technology is based on the dual effect of physical reaction and chemical reaction....

Finally, the frequency of each nominalization is quantified and its function is analyzed deeply.

##### 4.2 Analysis and Results

By combining the software AntConc with manual annotation, the author finds that there are mainly four types of nominalization in the abstracts, among which the verb nominalization is more frequent than other forms of nominalization. The frequencies of the nominalization are shown in the following table.

Table 2. Frequencies of the nominalization

	Frequency	Proportion
adjective nominalization	34	9.21%
verb nominalization	319	86.44%
circumstance nominalization	4	1.08%
conjunction nominalization	12	3.25%

##### 4.2.1 Adjective Nominalization

Nominalization can be used to convey an attributive meaning, which can result from adding suffixes. It's apparent that the word ‘*important*’ and ‘*effective*’ are replaced by the word ‘*importance*’ and ‘*effectiveness*’ in the following examples.

7) These results show the importance of teaching FL authors how to create summaries using an SFL technique.

8) The effectiveness of this project was examined through the assessment of two CSL course.

The author finds the suffix ‘-ness’ and ‘-ance’ are the most common phenomenon in the abstracts.

According to the above examples, this kind of grammatical metaphor can rearrange all the other elements of the message. The original adjectives turn into nouns, so that it can be modified by other elements. On the contrary, if using verbs or adjectives to express the same meaning, the structure may be horribly awkward and fractured, and it may be challenging to understand the relationships between the processes. Therefore, adjective nominalization can promote the conciseness of the abstracts.

#### 4.2.2 Verb Nominalization

As is illustrated in the table, verb nominalization is used most frequently, which accounts for 86.44%. There are three patterns of nominalization. The first one contains the use of gerund nouns. It functions metaphorically, while maintaining its morphological gerund verbal form, as is illustrated in the sentence 9) and 10). The second one is the result of the use of suffixes and the suffixes ‘-ion’, ‘-ness’, ‘-ment’ and ‘-ce’ are more productive than others, which can be seen in the sentence 10) and 11). The last one fails to adopt any morphological inflections, but it also functions metaphorically. For example, in the sentence 12), the word ‘control’ and ‘use’ are functioning as a thing.

9) The SFL-based teacher-written feedback gradually helped enhance the students’ understanding of SFL’ meaning making as well as....

10) Following this brief description is the analysis of both essays in terms of these resources.

11) Implications for educational practice and recommendations for educators are provided.

12) The results of the study indicate that the two writers demonstrated increased control in their use of textual resources.

One reason that nominalization fits with the philosophy of science and academic writing in general is that it makes it simple to depersonalize processes and express them without the use of human actors. In other words, transforming a process into a “noun” allows authors to reflect on the negotiation and definition of the clause’s meaning, which allows for the treatment of the meaning as an actual, existent ‘thing’. To be more specific, when utilizing nominalized meanings to demonstrate conclusions or insights, it is not necessary for the writer to specify who the actual interpreter is and writers can establish universal facts unrelated to particular instances of time or observers. It is evident that nominalization can promote the objectivity of the abstracts.

#### 4.2.3 Conjunction Nominalization

Nominalization of conjunction is usually used to express logical connections. The following examples will illustrate this point. The first sentence in sentence 13) is realized in a congruent relationship, connected by the conjunction ‘although’. Specifically, the participant (*the degree*) is expressed congruently in the lexico-grammar as nominal group, while the process ‘differs’ is expressed congruently as verb. The second sentence illustrates the variation of first sentence. In second sentence, the prepositional phrase ‘*despite the different degree*’ is reconstructed metaphorically as a circumstance.

13) Genre-specific language learning can be..., although the degree to which students benefit from the task differs. Despite the different degree....

A clause can become a phrase, which allows two phrases derived from two clauses to be combined into a single sentence. In other words, the nominalization, which refers to the phenomena that was presented and extensively addressed in the preceding part, appears at the beginning of a new section, thus making the language more coherent.

#### 4.2.4 Proposition Nominalization

The environmental elements in the congruent form are usually expressed by the prepositional phrases or adverbs. Proposition nominalization is often derived from the conversion of prepositions, prepositional phrases or adverbs of expressions, which are relatively few in the abstracts. As is illustrated in the following examples, the circumstance element ‘*due to ...*’ can be reconstructed into a nominalization ‘*the reason for...*’.

14) The academic papers are lacking in academic features largely due to their poor ability to use nominalization.

15) The reason for lacking academic feature in academic papers is their poor ability to use nominalization.

The nominalization of environmental elements in the abstract is relatively rare, because it is difficult to convert the parts of speech that represent environmental elements into nouns.

## 5. Conclusion

Nominalization plays a critical role in academic writing. This paper has illustrated the main characteristic of nominalization in the abstracts of linguistic papers, enabling learners to have a further understanding about how to use nominalization. There are four types of nominalization in the abstracts, among which verbal nominalization is the most frequently used in the abstracts. Nominalization serves a variety of purposes. To begin with, the objectivity of the abstracts can be enhanced by using verb nominalization rather than verb to explain a research method and result. Also, because the material may be condensed, the nominalized version is shorter in length, which fully satisfies the requirements of making abstracts more concise. What's more, by using nominalization, sentence structures in the abstracts can become more coherent. Due to the limited amount of data, the statistics in this paper can not fully represent the application of nominalization in the abstracts. In the future, it is essential to analyze larger amounts of data so that the results can become more convinced.

## References

- Bloomfield, L. (1942). *Philosophical Aspects of Language*. New York: Henry Holt.
- Chomsky, N. (1957). *Syntactic Structure*. The Hague: Mouton. <https://doi.org/10.1515/9783112316009>
- Gao, H. (2020). A study of nominalization from the perspective of conceptual organization in cognitive grammar. *Journal of PLA Institute of Foreign Languages*, 43, 68–76.
- Halliday, M. A. K. (1985/1994). *An Introduction to Functional Grammar*. London: Edward Arnold Limited.
- Halliday, M. A. K. (1999). *The language of early childhood*. Continuum.
- Halliday, M. A. K., & Matthiessen, C. I. M. M. (2004). *An Introduction to Functional Grammar*. London: Arnold & Beijing: Foreign Language Teaching and Research Press.
- Halliday, M. A. K., & Matthiessen, M. I. M. (1999). *Construing experience through meaning, a language-based approach to cognition*. Norfolk.
- Jespersen, O. (1937). *Analytic Syntax*. Chicago: The University of Chicago.
- Langacker, R. (1987). *Foundations of Cognitive Grammar* (Vol. 1 Stanford). California: Stanford University Press.
- Lees, R. (1963). *The Grammar of English Nominalizations*. The Hague: Mouton.
- Martin, J. R., & Rose, D. (2008). *Genre relations: Mapping culture*. London, UK: Equinox.
- Ramanathan, V., & Kaplan, R. B. (2000). Genres, authors, discourse communities: Theory and application for (L1 and) L2 writing instructors. *Journal of Second Language Writing*, 9(2), 171–191. [https://doi.org/10.1016/S1060-3743\(00\)00021-7](https://doi.org/10.1016/S1060-3743(00)00021-7)
- Ryshina-Pankova, M. (2015). A meaning-based approach to the study of complexity in L2 writing: The case of grammatical metaphor. *Journal of Second Language Writing*. <https://doi.org/10.1016/j.jslw.2015.06.005>
- Thompson, G. (1996). *Introducing Functional Grammar*. Edward Arnold, London.
- Thompson, G. (2014). *Introducing Functional Grammar*. London & New York: Routledge. <https://doi.org/10.4324/9780203785270>
- Wang, J. J. (2003). On the use of nominalization in different text types. *Foreign Languages Research*, 2, 74–78.
- Wang, W. F., & Wang, J. M. (2003). On the study of english nominalization by the three major schools. *Foreign Language Studies*.
- Wang, Z. H. (2016). *New System Function Grammar Course*. Shanghai: East China Normal University Press.
- Yang, B. (2013). Cognitive view of conceptual grammatical metaphor. *Foregin Language*, 36, 27–35.

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