An Analysis of Discourse Occurrence Mechanism of Grammatical Metaphors

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Abstract: The theory of grammatical metaphor is an important tool for human beings to understand the world. Its application makes texts have strong explanatory and persuasive powers, and contributes to the production of good cognitive effects. However, many scholars have found that there are many gray areas that are difficult to identify in the study of grammatical metaphors, which place too much emphasis on the relationship between the forms of language expressions, but do not pay enough attention to the semantic relationships embodied by expressions, resulting in different grammatical metaphors. Starting from the grammatical and metaphorical views of systemic functional linguistics, this paper affirms the grammatical-metaphorical relationship between different expressions that express the meaning of the same proposition, discusses the discourse generation mechanism of grammatical metaphor, emphasizing the importance of register in the formation of grammatical metaphors. It regards language expressions that meet the needs of the register as congruent, treats language expressions that deviate from the register as metaphors, and emphasizes that semantic relevance is the premise and foundation of the existence of grammatical metaphors.

Key words: grammatical metaphor, register, discourse generation mechanism

1. Introduction

The introduction of the term grammatical metaphor can be traced back to 1976 (Halliday, 1976), and the basic establishment of the theoretical framework was marked by the publication of “Introduction to Functional Grammar” (Halliday, 1985). The theory has experienced the development and improvement of functional mode, hierarchical functional mode and hierarchical system mode (Delu Zhang and Juan Dong, 2014). At the same time, the definition of grammatical metaphor in academic circles and its application in stylistic analysis, language teaching and translation have achieved fruitful results (Yongsheng Zhu, 2006; Chengyu Liu, 2008; Guowen Huang, 2009). With the deepening of the research on grammatical metaphors, questions and controversies also follow. Halliday regards grammatical metaphor as the cross-coupling of semantics and grammar, and outlines 13 types of grammatical metaphor (1998), which makes the research too subjective and lacks a clear definition and scope of research (Yingxu Cong, Hongyang Wang, 2013). Hongmei Wu and Ke Liu (2010) believed that the statement of grammatical metaphor is debatable, and tried to demonstrate the falsehood of grammatical metaphor. Previous research on grammatical metaphors mostly observed and analyzed grammatical metaphors from the perspective of language systems, and regarded consistent and metaphorical forms as options provided by the system as a resource, without involving many factors that restrict choices. Halliday (2008) and Matthiessen & Halliday (2009) regard systems and discourse as two complementary perspectives for observing linguistic phenomena, and advocate a research approach in which the two perspectives refer to each other. To observe and analyze the phenomenon of grammatical metaphors from the perspective of discourse generation, the questions we need to solve are: what factors restrict the determination
and selection of metaphorical and consistent forms? What is the rationale for the occurrence of grammatical metaphors? At the pragmatic level of discourse, the change of register elements affects the speaker's use of language expressions, and ultimately affects the choice of language expressions. This paper intends to explore grammatical metaphors from the two aspects of language use register and semantic association, highlighting the pragmatic factors that affect the choice and use of language expressions.

2. Grammatical Metaphors From the Perspective of Systemic Functional Linguistics

Halliday believes that language structure is the realization form of social structure, which actively reflects social structure in the process of mutual creation; language variation is the symbolic expression of social variation, which is created by society and in turn helps to create society. One of the core ideas of Systemic Functional Grammar is that the human need to use language determines the language structure. First, let's look at the basic viewpoints of grammatical metaphor under the theoretical framework of SFL---the grammatical viewpoint and metaphor viewpoint of SFL.

2.1 The Grammatical View of Systemic Functional Linguistics

Systemic functional linguistics believes that language is a hierarchical symbolic system: the phonological layer is the embodiment of the lexical-grammatical layer, and the lexical-grammatical layer, the embodiment of the discourse meaning layer. In other words, language is a semogenic system and a form in which meaning is embodied (Halliday, 2004:8). People use language to construct a picture of the world, and understand experience. Experience is transformed into meaning, and the transformation process is influenced by grammar. On the one hand, the idea base of meaning is ambiguous, mixed, complementary, and multi-systematic, supporting different interpretations of experience (Xinzhang Yang, 2008: D21); on the other hand, grammar is compromising, and only a highly flexible grammar system can meet the need to understand the complex interactions and interpersonal interactions between humans and their environment (Halliday, 2004:11). It can be seen that the grammatical view of systemic functional linguistics recognizes that there are different ways of understanding the semantic layer of discourse, and it is reflected in the different representation methods of the lexical grammar layer. The tension between the semantic layer and the lexical-grammatical layer leads to the "unnatural" representation of the semantics by the lexical-grammar, thus giving birth to grammatical metaphors. This means that the natural relationship between meaning and wording is extended: semantic categories have new realms of realization, and everyday experience is reshaped (Halliday & Matthiessen,1999:241-244). Grammatical metaphors are ways and means of knowing the world.

2.2 The Metaphorical View of Systemic Functional Linguistics

Halliday sees language as a social symbol and social behavior. There is an expressive relationship between language and social behavior, and language is also a metaphorical form of social behavior, such as register variation and dialect variation, which are expressed metaphorically. Functional linguistics believes that grammatical metaphors represent a psychological cognitive model. It uses language to describe an external world, and the form and content of language can reflect the relationship in the real world. Halliday begins with a vision of language meta-functions and explores the specific role of grammatical structures on semantics. There are two ways of expression, one is that the structure of language can directly reflect the structure of real society, and the other does not. Starting from a specific meaning, Halliday (1985: 321) used a "top-down" perspective to
study metaphorical phenomena when proposing the concept of grammatical metaphor, paying attention to different ways of realizing meaning, and defining metaphor as "variation in the expression of meanings (Halliday, 1996). Any particular semantic configuration has (at least) one consistent realization at the lexical-grammatical level, and possibly others, with some metaphorical transformation (1985:321). Halliday (1998) has clearly stated that lexical metaphor is "same signifier, different signified", while grammatical metaphor is "same signified, different signifier". The only difference between the two is the perspective of observation. From a top-down perspective, grammatical metaphors change grammar instead of vocabulary (Halliday & Matthiessen, 1999:241-244). Therefore, many system-functional linguists believe that the basic idea of cognitive linguistics, which regards metaphor as a cross-domain mapping of concepts, can provide a unified platform for describing grammatical and lexical metaphors (Halliday & Matthiessen 1999: 233).

Halliday and Matthiessen (1999) discussed the relationship between the semantic layer and the lexical grammar layer from the perspective of empirical understanding, and pointed out that the consistent way of empirical construction is: the sequence, figure and element of the semantic layer are respectively represented by clause complexes, clauses and phrases/phrases at the lexical-grammatical level. Once this consistent representation is broken, a re-mapping occurs between the semantic and lexical-grammatical layers, and the result is a grammatical metaphor. Halliday (1998) pointed out that, as a multi-level system, language has inherent metaphorical capabilities, and grammatical metaphor is the reunion between the semantic and lexical-grammatical levels of language. From the perspective of language system, the expansion of the meaning potential of language promotes the development of grammatical metaphors, which also expands the meaning potential of language.

3. Semantic Relevance—The Premise and Basis of Grammatical Metaphors

Halliday & Matthiessen (1999) studied semogenesis under three time frames: phylogenesis, ontogenesis and logogenesis. Among them, discourse generation focuses on the use of language systems in discourse. Discourse occurrence is highlighted in the synchronic level of the speaker's choice of different expressions of the same conceptual structure (Chengyu Liu, 2003). It is the speaker's choice and use of language expressions in a specific context. The pragmatic factors that affect the occurrence of discourse mainly include semantic relevance and the register of discourse occurrence. Grammatical metaphor is the reconnection and projection of the semantic level at the lexical-grammatical level (Halliday, 1998/2004: 58). There are three elements for determining grammatical metaphors: semantic level, lexical-grammatical level and semantic relevance, which is the focus here. At the level of discourse pragmatic generation, discourse occurrence is reflected in the choice of different language expressions for the meaning of the same proposition. (see figure 1).

![Figure 1 The pragmatic occurrence of discourses](image-url)
Grammatical metaphor occurs at the pragmatic level of discourse, the semantic relevance and the register of language use being important parameters for the occurrence of grammatical metaphor. There are grammatical metaphorical relations between different language expressions that express the meaning of the same proposition. There are two choices for the expression of the same propositional meaning (as shown in Figure 1), corresponding to the register 1 is the expression meaning 1 and its language expression 1; corresponding to the register 2 is the expression meaning 2 and its language expression 2. The language expressions corresponding to the corresponding registers are congruent, and the language expressions used across registers are metaphors. That is, language expression 1 is congruent in register 1. If language expression 2 is used in register 1, it will inevitably produce an expression meaning that is both related and different from expression meaning 1, and language expression 2 is a metaphorical one. It should be pointed out that register 1 and register 2 are different situational contexts that express the meaning of the same proposition, and there must be some overlap between the two. Associative, metaphorical thinking is the driving and realization factor that enables the transformation of semantics to other meaning domains. As a processing mechanism of meaning, it has an impact on the evolution of semantics and provides a driving force for semantics (Qian Zhao, 2010). The fact that semantic relevance is established through metaphors can promote meanings to cross domains, resulting in grammatical metaphors embodied at the level of lexical grammar. There is an interdependent relationship between register and lexical grammar.

In addition, language is the representation of experience of human interaction with the world with the basis of its experiential cognition (Zhengjun Lin, Hui Zhang, 2022). The human sensory system is the inevitable path to primary experience, and the primary language of human beings is a direct manifestation of the experience of human interaction with the world. At the same time, linguistic meaning comes from the brain's cognitive enhancement of the experience of human interaction with the world, which is the embodiment of the conceptualization of perceptual experience. Conceptualization is a process obtained from the sense, perception to cognition and from concrete to abstract cognition, which reflects people's deepening abstraction and generalization of life experience about the interaction between people and the world. The progressive relationship just interprets the general law that human beings know the world. Semantic concepts are the results by which people conceptualize embodied experience while grammar is the abstraction and generalization of people's knowledge of language use. It goes without saying that language has its cognitive properties. If there is no deep cognitive processing of perceptual experience, there will be no fundamental and conceptual semantic structure, let alone abstract and complex semantic structure of concepts and knowledge of grammar. Experiential and cognitive properties are closely integrated together in the generation, judgment and use of grammatical metaphors.

Due to the role of cognitive psychology, in the process of projecting the variables of register to the lexical grammar layer, there is a tension between the lexical grammar layer and the discourse meaning layer. At the same time, the generation of grammatical metaphors is related to the change of register elements. When the register elements that express the same proposition change, the meaning of expression will also change, which will eventually lead to the change of language expressions, providing the possibility for the generation of grammatical metaphors.
4. Register Factors of Grammatical Metaphors

In fact, there is a close relationship between grammatical metaphors and variables of register. The more the nominalization of grammatical metaphors is used, the more technical the discourse will be, which explains the relationship between conceptual metaphors and discourse in grammatical metaphors. The modality and mood of language used to express interpersonal relationships are related to the age of language users and the complexity of interpersonal processing. “The government still hopes to stem the tide of inflation” is a metaphor for the relational process of “To resist the force is to stem the tide”. Systemic functionalism agrees with the metaphoric relationship between the two sentences. However, their research focuses on the mapping of different language functions. Functionalism pays more attention to the incongruency of metaphors, and grammatical metaphors are gradually developing towards incongruency. Congruency in one language is reflected in a metaphor in another (Steiner, 2003; Thompson, 2014). Therefore, grammatical metaphor is closely related to register.

<table>
<thead>
<tr>
<th>register---lexico-grammatical level</th>
<th>congruent</th>
<th>ideational metaphor</th>
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<td>metaphoric</td>
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**Table 1 The relationship between grammatical metaphor and register**

The register describes variation phenomena in language use, that is, various differences in the process of social activities. It is the result of the interaction of language users with all aspects of context. Field (discourse range) is the entire event involved in the utterance, and the purpose of the speaker or author, including the subject of the utterance. Mode of speech (discourse mode) is the function to be achieved by discourse in an event, including the channel of language adoption (oral or written language, on-the-spot performance or preparation), as well as language style categories or rhetorical means (such as narration, preaching, persuasion, greeting, etc.) Tenor (discourse tone) refers to the type of role in communication, that is, the social relationship between discourse participants. Field, mode and tenor constitute the situational context of a discourse (Halliday & Hasan, 1976:22). The three elements of register determine the communication content and possible communication methods, and can be the basis for us to predict the communication form and content. When the language expression does not match any of the three elements of the register, the implication will be generated, and this kind of expression is a metaphor.

4.1 Field Factors

In the use of language, when people cannot, for some reason, talk about an event directly, it is mapped or inspired by talking about another event. By partially changing the field of speech (including the time involved in the utterance and the subject of the utterance), the purpose of what the speaker wants to express is achieved. The component of grammatical metaphor is that different language expressions are used to express the same propositional meaning.

(1) From behavioral process to material process
(1a) The witness described the suspect in great detail.
(1b) The witness gave a very detailed description of the suspect.

(2) From behavioral process to existential process

(2a) The two countries compete intensely with each other in trade.

(2b) There are intense competitions between the two countries in trade.

Hu Zhuanglin (1999) believes that the material process of (1a) is metaphorically transformed into the relational process of (1b), and the relational process of (2a) is metaphorically transformed into the material process of (2b). In fact, it is difficult for us to make the above judgments without a specific register and text. Generally speaking, the discourse field is mainly represented by conceptual grammatical metaphors, and the probability of using conceptual grammar metaphors is different in different genres of texts. For example, news events themselves have different characteristics. Political events and economic events are more serious, formal and professional. The purpose of reporting these two types of news is mostly to clarify the government's position, announce national policies, and regulate social behavior. Sports news is more popular, and this kind of report not only spreads information, but also has the purpose of leisure and entertainment, so the conceptual metaphor of sports news is lower than the former two.

4.2 Mode Factors

Mode is also one of the important parameters for judging grammatical metaphors. Spoken language and written language have differences in complexity. Written language has lexical density complexity, while spoken language has grammatical complexity (Halliday, 2014). Traditional grammatical metaphor studies often regard nominalized expressions as metaphorical expressions, while the corresponding non-nominal expressions are regarded as congruent expressions, which is also out of the actual language use since only the general linear development of spoken to written language is considered. From the point of view of the actual use of language, if a spoken expression is used in the oral environment, the expression is congruent, which reflects the casual, cordial and natural characteristics of oral communication; while if the written expression is used in the oral environment, this expression is incongruent. This kind of expression will conflict with a specific context, produce implication, and show the speaker's formal and serious attitude. Compared with the oral expression environment, the written expression is metaphorical; similarly, in the written context, using spoken expressions has the opposite effect. In written or formal situations, nominalized expressions are congruent, and non-nominalized spoken expressions are metaphorical; the opposite is true in spoken or informal situations.

Examples (3)-(6) are adapted from Eastwood 1994:66.

(3) The rising cost of petrol and increasing traffic congestion in towns have brought back for the bicycle some of the popularity it was beginning to lose.

(4) Well, the cost of petrol is going up, and there is so much traffic in towns these days, isn’t there? And so bicycles have become more popular now after a time when not so many people were using them.

(5) Cycling is healthy, practical, and, for many people, a popular recreation.

(6) I think cycling is good for you, and it’s practical, and lots of people enjoy it.

Metaphorical expressions are inconsistent with specific registers, and are prone to implication. (3) is the written expression, used in the written context; (4) is the corresponding spoken expression, used in the spoken context. Expressions that are consistent with the corresponding context above are congruent, and those that are inconsistent are metaphors. If clause (3) is followed by clause (5), (5) is congruent; if it is followed by clause (6), (6) is metaphorical. On the contrary, if clause (4) is followed by clause (6), (6) is congruent; if it is followed by
clause (5), (5) is metaphorical. From the perspective of language, the use of metaphors should be consistent with two distances: interpersonal distance and experiential distance. The greater the interpersonal distance and experiential distance, the higher the degree of metaphor (Wenfang Fan, 2001). News is the distance between news language and news facts. The more language focuses on the event process, the stronger the narrative, and the smaller the experience distance; the more language focuses on commentary overview, the stronger the persuasiveness and preaching, the greater the experience distance, and the sports news focuses on the dynamic process of reporting events, therefore, it is less metaphorical than political and economic news.

4.3 The Tenor Factors

According to Halliday, explicit subjective and explicit objective phenomena in interpersonal metaphors expressing possibility, regularity, responsibility and inclination belong to modal metaphors, such as I think, It is likely, It is expected, etc.; The inconsistency of mood and speech functions constitutes a mood metaphor. Modal and mood metaphors in interpersonal metaphors reflect the tenor variables in the register. The social relationship (i.e. tenor) among discourse participants influences and even determines the content and mode of speech (ie field and mode). To different people, the content and method of our speech are different: to respect elders and seniors, to be serious to superiors, to be affectionate to parents and lovers, to be friendly to friends and to be concerned about the younger generation and children. Once we break this social relationship and participate in verbal communication in a role that is inconsistent with our own social identity, the implication will arise, and the speaker will use a verbal expression that is consistent with their own identity (including age, status, relationship between discourse participants, etc.) Differences in the age, occupation, power status, knowledge level and education level of both parties will affect the use of grammatical metaphors.

The subjectivity and objectivity of verbal expression is mainly achieved through modality, and there is an interpersonal grammatical metaphorical relationship between verbal expressions with different modal orientations. Halliday (1994, 2014) divided interpersonal metaphors into four categories according to modality orientation: explicit subjectivity, explicit objectivity, implicit subjectivity and implicit objectivity. The traditional grammatical metaphor research believes that the development of interpersonal metaphors from subjective to objective is a diachronic development process. The subjective expression is congruent, and the objective expression is metaphorical. This view is separated from the register of language use and ignores the pragmatic factors of choosing language expressions. For example:

(7) I think John likes football. (explicit subjective)
(8) John’ll like football. (implicit subjective)
(9) John probably likes football. (implicit objective)
(10) It’s likely that John likes football. (Explicit Objective)

The metaphoricality of a language expression cannot be judged by its subjectivity or objectivity alone, but we should take into account the specific register in which it is used. In the case of emphasizing the speaker's subjective opinion, (7) is congruent, (8), (9), and (10) are metaphorical, and the degree of metaphor gradually increases from (8) to (10); when we emphasize the speaker's objective opinion, (10) is congruent, (7), (8), and (9) are metaphorical, and the degree of metaphor increases gradually from (9) to (7). No matter how expressions and meanings of expression change, their corresponding propositional meanings are unique. The choice of expression meaning and expressions is determined by language users according to specific contexts, and there is
a correlation between these meanings, that is, semantic relevance.

At the same time, Halliday divides the interpersonal functions of language into four types: statement, question, command and offer. At the lexical-grammatical level, declarative, interrogative, Imperative and modulated interrogative. If the language function is represented by its corresponding mood, its expression is congruent, otherwise, it is a mood metaphor.

(11) Open the door.
(12) Would you open the door?
(13) I would like you to open the door.

The meanings between these expressions are related, forming a semantic relationship of metonymy. The choice of different expressions depends on the relationship between the speaker and the hearer, (11) is usually used to make requests or orders to people or subordinates who are familiar and intimate; (12), (13) are more polite and respectful to make a request or help to someone you don't know well or to a superior. If the expression used is not corresponding to the proper relationship between the speaker and the hearer, mood metaphor will occur. The propositions expressed by these three expressions have the same meaning, that is, “let (the hearer) open the door”, the difference is only in the relationship between the speaker and the hearer and the degree of politeness.

5. Conclusion

Grammatical metaphor is an important means of semantic expansion. No matter what differences exist in language expressions in form or in meaning, there is a semantic relevance between the expression meanings embodied by grammatical metaphors, which is the premises and foundations of grammatical metaphors. Grammatical metaphor is a symbolic category of Systemic Functional Linguistics, which is embodied in two aspects, namely, variant language view and multiple external sociality (Xuanwei Peng, 2016). The generation of grammatical metaphors involves various register variables including the social context. The linguistic expressions that meet the needs of the register are regarded as congruent, and those that deviate from the needs of the register are regarded as metaphors. Form is the embodiment of meaning. Different forms have different meanings. Therefore, there must be differences in the expressive meanings embodied by different expressions of grammatical metaphors. There are semantic relevance between the meanings embodied by modal expressions and between the meanings embodied by mood expressions. Therefore, grammatical metaphors appear and develop with the improvement of human's cognition of the empirical world. The manifestations, functions and cognitive effects of grammatical metaphors reflect the development of human language and the improvement of cognitive level.

References


