

A Functional Perspective on the Relationship between Grammatical Metaphor & Mode in English Political Discourse

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Abstract- *This study aims to explore the relationships between GM and mode in English political discourse through an analysis of a corpus formed by 15 texts based on Halliday's GM framework, and these texts construct three text types distinguished in mode, namely, political reports, political speeches and political interviews. After defining the mode scale and the GM distribution scale, the study then examines how GM deployment connects with mode in two steps: (1) establishment of mapping relationships between the lexical density scale and the ideational GM deployment scale; (2) interpretation of the mapping relationships from functional perspectives. It is found that the lexical density scale and GM distribution scale of three text types are well mapped onto each other, which indicates that ideational GM distribution strongly correlates with the lexical density. Such mapping relationships suggest that the deployment of GM is related to mode because the use of GM has distinctive effects on the complexity, organization and ideologies of texts in different modes.*

Keywords- *Systemic Functional Linguistics, grammatical metaphor, mode, lexical density, grammatical intricacy, English political discourses*

1. INTRODUCTION

As an important research focus in the field of Systemic Functional Linguistics (SFL), the theory of Grammatical Metaphor (GM) is crucial for understanding the relationship between language and context. Therefore, the contextual research of GM has drawn considerable attention from many researchers. Given that the study of context is primarily concerned with register theory in SFL, the use of GM is mainly examined by considering three register variables, namely, field, tenor and mode. Halliday (1985) claims that whether a text is spoken or written is the most important factor in determining the extent of deploying GM. For that matter, the earlier contextual research focuses on the relationship between GM and the register variable of mode. Ravelli (1985) conducts an initial and rewarding study on the relationships between mode, complexity and GM by analyzing a data set formed by four written and four spoken English texts. This research demonstrates that "the extent of grammatical metaphor in a text varies in relation to variation in mode, primarily because metaphor contributes to complexity differences between texts of differing modes" (Ravelli 1985:109). Although Ravelli's research points out the co-varying relationships between GM and mode to some extent, it still has some unavoidable limitations. First, her analytical framework does not cover the discussion of interpersonal GM, and the way of categorizing ideational

GM is not fully developed at that time due to the insufficient development of GM theory. Second, her dataset only consists of two text types, which cannot form a much more delicate mode scale to give a more detailed and convincing explanation, since the register of mode is usually described as a continuum in SFL. Most importantly, almost no follow-up studies after Ravelli's research have been conducted in nearly 30 years to further explore the nature of GM-mode relationships. In this sense, it is of vital academic significance to investigate the relationships between GM and mode by expanding the scope of corpus as well as covering the discussion of interpersonal GM.

In the hope of bridging the gaps left by previous studies, this study collects language materials in the field of politics for two reasons. In the first place, most studies on GM have formed their corpus with scientific discourses, leading to insufficient attention paid to other genres of discourse, especially those in humanities and social sciences. Second, previous studies on the political discourse mainly concentrate on political and stylistic fields, such as international relationships, regional issues and rhetoric features. For these reasons, this study intends to further explore linguistic features of political discourse based on the GM theory, hoping to make some contributions to the study in the field of politics.

To conduct the research, the dataset is formulated by three text types distinguished in mode. Specifically, these

three text types are located at different positions along the mode continuum, including political reports, political speeches and political interviews. Since three register variables operate simultaneously in a certain language activity, a systematic study on one variable should be conducted with the other two controlled for the sake of credibility. With respect to the variable of field, these text types produced by governmental institutions or political figures are restricted within the political field with political topics as their focus. In terms of tenor, which refers to the relationships between interactants, the addressors in the selected texts are those in power while the addressees are people inferior in their social status, forming an imbalanced power relation between them. Thus, the interpersonal relationship is also largely fixed. In order to offer a more clarified and manageable research framework, the study breaks down the research aim into three specific questions: (1) what are the differences among various modes of English political discourses? (2) whether there exists a GM scale among three types of English political discourses? (3) How does GM connect with mode in English political discourses?

2. LITERATURE REVIEW

2.1 Grammatical metaphor

Halliday proposed the concept of GM in 1985, viewing his thought of GM as a complement to the traditional studies of lexical metaphor. Halliday (1994) explains the relationships between lexical metaphor and GM from the perspectives of 'from below' and 'from above', based on the concept of stratification in SFL which sees language as a stratified semiotic system, with semantics and lexicogrammar forming the content plane of language. Halliday (1994: 342) claims that lexical metaphor is in fact the "variation in the meaning of a given expression", while metaphor can also be viewed as "variation in the expression of a given meaning", which considers the meaning as the point of departure to compare different lexicogrammatical forms. Halliday (1998) maintains that language creates meaning through the realizational relations between semantics and lexicogrammar. Typically, grammatical forms congruently realize the meaning, but this realization pattern is not always followed, since 'the grammar has the power of construing, by the same token (that is, by virtue of being stratified), it can also deconstruct and reconstruct along different lines' (Halliday 1998: 190). Therefore, Halliday (1998: 58) defines GM as "a realignment between a pair of strata: a remapping of the semantics on to the lexicogrammar". Halliday and Matthiessen (2004) further examine GM by suggesting the idea of 'transgrammatical semantic domains' and argue that 'it is the pressure to expand the meaning potential that in fact lies behind the development of metaphorical modes of meaning' (Halliday and Matthiessen 2004: 626). This interpretation of the inherent

motivation of GM is a crucial contribution to the research of the nature of GM.

Since the establishment of GM theory, it has triggered numerous researchers' interests in studying GM. For instance, Martin (1991) makes a distinction between congruent and incongruent metaphorical realizations by arguing that there exist natural and unnatural relations between semantic and grammatical categories. The natural relationship means the congruent grammatical realization of the meaning, while unnatural means incongruence. Goatly (1996) holds that GM can be simply conceived as one form of markedness and the passive is an instance of GM. His view of regarding markedness as metaphorical realization broadens our view on grammatical metaphor, but seems to deviate a lot from that of Halliday. Although Halliday recognizes the presence of implicit connection between the unmarked and the congruence, it does not mean markedness is metaphor. In fact, GM is a far more complicated phenomenon than markedness. Given most studies of GM still mainly focus on the language of English, Yang (2008; 2015) gives a comprehensive and detailed discussion of the identification and categorization of GM in Chinese, based on the distinctive typological features of Chinese language, which proves to be a rewarding reference for future studies on GM in Chinese. In recent years, researchers pay more attention to the application studies of GM. Liardét (2016) conducts a systematic and comparative analysis of ten first-year university students' texts to examine how high performing learners' deployment of grammatical metaphor differs from that of low performing students and the impact of GM deployment on learner success, finding that 'GM deployment alone is not the marker of successful academic writing' (Liardét 2016: 117). He and Yang (2018) investigate the correlation between technicality and two typical ideational metaphors, namely, nominalization and verbalization, with a corpus formed by academic papers of natural sciences and social sciences written by Chinese users of English and those by native English users. Their study shows that the technicality of text is determined by the use of verbalizations rather than by that of nominalizations and native English users write more technical English than EFL Chinese users. This research is of great significance to the discipline-based English training of the non-native English learners.

2.2 Mode

SFL has a special concern with context, namely, the situation in which language evolves. Register is an important concept in describing context, and Halliday (1978: 85) regards it as "a configuration of meanings that are typically associated with a particular situational configuration of field, mode, and tenor". Field concerns the language activity occurring in social context and tenor refers to the interpersonal relations between participants involved in this activity. As for the register variable of mode, Martin (1992: 508) defines it as "the role language

is playing in realizing social action". Before exploring relationships between mode changes and language variations, the features of mode should be explained first. Martin (1984) argues that the role played by language actually involves two simultaneous continua, which describe two different types of distance in the relations between the language and the situation, namely, spatial/interpersonal distance and experiential distance. The former is the continuum that ranges situations based on the possibilities of immediate feedback between the interactants, while the latter ranges situations according to the distance between the language and the social process. By combining these two mode continua, the differences between spoken and written language, as well as many other in-between situations of language use, such as telephone conversation, email and radio program, can be roughly described. However, such scales of feedback and channel can only suggest some broad differences between different types of texts but provide limited assistance in thoroughly characterizing mode differentiation, namely, various modes. For instance, a public speech text has both the features of a written text and a spoken one because it is often pre-prepared. Therefore, these broad distinctions are not sufficient in distinguishing texts in various modes and other solutions should be found.

In SFL, mode is primarily projected in the textual meaning of language, which involves the organization of the message and determines the linguistic features of the text being developed. Mode thus is in association with the linguistic features of text and is reflected at the lexicogrammatical level. In this sense, the description of mode differentiation can be reasonably done through examining the lexicogrammatical features of texts. Egging (2004) claims that two linguistic features are highly sensitive to mode variation: the degree of grammatical complexity, and the lexical density of language. These two features indicate the most striking differences between spoken and written language. Halliday (1985) also points out that the written text generally has a much higher rate of lexical density than the spoken text, and the spoken text has a higher level of grammatical intricacy. An important reason is that these two features are related to the process of nominalization. In a written text, verbs and other parts of speech are frequently turned into nouns, so the content carried by a clause is possibly increased, leading to the high lexical density. While in a spoken text, various word classes, especially verbs, are used to make the message much more received. With respect to grammatical intricacy, it relates to the number of clauses per sentence. In the spoken context, the clauses in the text are usually loosely strung out and a long sentence containing many clauses is frequently used. In constructing a written text, however, relatively few clauses per sentence are employed in order to make the message more condensed.

2.3 GM-mode relationships

The evolvement of GM theory has driven many researchers to carry out the contextual research of GM. Ravelli (2003) claims that GM is central to the understanding of the relationships between language and context. Since the establishment of register theory, the contextual research of GM is mainly examined by considering three register variables, namely, field, tenor, and mode. Halliday (1985) argues that whether the text is spoken or written is the most important factor in determining the extent of GM. Because of this, exploring the relationships between GM and mode and the underlying reasons behind such relationships is of vital importance in the contextual research of GM. Ravelli (1985) conducts an initial exploration of the relationships between mode, complexity and GM in her BA thesis by analyzing a data set formed by four written and four spoken English texts. She presents the mode scale with the complementary measures of lexical density and grammatical intricacy and develops a way to define the scale of GM in texts. The research results show that 'the extent of grammatical metaphor in a text varies in relation to variation in mode, primarily because metaphor contributes to complexity differences between texts of differing modes' (Ravelli 1985: 109). Although Ravelli's research suggests the co-varying relationship between GM and mode, it has not systematically explored the reasons for which GM can vary in relation to mode differentiation or the ways GM co-varies with mode. Additionally, in Ravelli's research, the GM framework does not involve interpersonal GM, and the data analyzed only takes into account two types of texts, which seems to be too polarized to give a more convincing and systematic conclusion. Most importantly, after Ravelli's investigation, few studies have been devoted to the systematic exploration of GM-mode relationships over almost three decades. In this sense, a more refined and systematic investigation of GM-mode relationships is still academically significant.

2.4 Political discourse studies

Chilton and Schäffner (2002: 3) claims that 'political activity does not exist without the use of language', indicating that politics and language are intimately intertwined. This study attempts to define the political discourse in a relatively narrow sense. The political discourse involves utterances, writings or other modes of expressions concerned with politics, produced by participants in political activities to achieve certain communicative goals with the use of language, or produced by political institutes and organizations. Such discourses include political speeches, political interviews, governmental White Papers, political columns and so forth.

Studies on the political discourse mainly concentrate on journalism, political communications and international political relations. In terms of investigating political

discourses with linguistic theories, it has received increasing attention from researchers coming from different branches of linguistics. Some researchers explore political discourses from the cognitive perspective. For instance, Lakoff (2003) explores the phenomenon of metaphor in political discourses, which reveals the political orientations, philosophies and values hidden behind political metaphors. Critical discourse analysis (CDA) developed in the 1980s provides new theories and methods for the analysis of different types of discourses, political discourse in particular. CDA regards the discourse as a social reality and 'primarily studies the way social power abuse, dominance and inequality are enacted, reproduced and resisted by text and talk in the social and political context' (Van Dijk 2008: 85). Fowler (1991) further expounds the framework of CDA and applies it to the analysis of news texts, concluding that those presses are actually instrumentals for ideologically manipulating their readers. Fairclough (1992; 1995) deeply discuss the relationship between language, ideology and power and propose the three-dimensional framework for discourse analysis, namely, description, interpretation and explanation, asserting that CDA aims to transform ideologies from de-naturalization to naturalization.

For the current study, however, it can be apparently observed that there exist two shortcomings in the studies of political discourse from the perspective of linguistics. On the one hand, few studies apply the theory of GM to investigate the political discourses, and on the other hand, most previous investigations concentrate on only one particular type of political discourse for exploring linguistic features, without examining the differences that may exist in various types of political discourses differed in modes. For that matter, this study attempts to initiate a relatively new perspective through an investigation of the relationships between GM and the mode variable by dividing political discourses into different categories based on the mode differentiation. Apart from probing into GM deployment in different political text types, this study also intends to explore the underlying reasons behind the GM-mode relationships. By doing so, the study expects to provide a new research perspective for the research of political discourse.

3. THEORETICAL APPROACHES

3.1 Classification of GM in Halliday's model

Halliday (1985, 1994) recognizes two kinds of GM: ideational GM and interpersonal GM, which are respectively associated with ideational and interpersonal metafunctions of language. Halliday (1998) identifies totally 13 types of ideational GM and these GM types are further elaborated in Halliday and Matthiessen (1999). Some GM types are further classified into subcategories, based on the fact that a grammatical construct corresponding to its semantic element may contain more than one component indicating different grammatical

functions. For example, the semantic element of process may be congruently realized by a grammatical construct which includes a verb as well as the tense and modality of it. Therefore, the metaphorical shift from process to entity involves three different types at the lexicogrammatical level: the class shift from verb to noun, tense/phase to noun and modality to noun

Interpersonal GM concerns expressions enacting and maintaining social relations in a way deviating from congruent patterns. Generally, interpersonal GM falls into two types: metaphor of modality and metaphor of mood. Modality is the intermediate area of meaning lying between the positive and negative polarity. It "represents the speaker's angle, either on the validity of the assertion or on the rights and wrongs of the proposal" (Halliday and Matthiessen 2004: 624). The classification of modality metaphor is thus concerned with the categorization of modality itself, which involves four systems: type of modality, orientation, value and polarity. On the basis of the four systems, Halliday (1994) identifies 144 possible realizations of modality, but Halliday and Matthiessen (2004: 624) claim that only 'the explicit subjective and explicit objective forms of modality are all strictly speaking metaphorical, since all of them represent the modality as being the substantive proposition'.

The metaphor of mood involves the incongruent expressions of speech functions. Halliday (1994) recognizes four speech functions, namely, statement, question, command and offer. Congruently, they are realized respectively by the mood of declarative, interrogative and imperative, except the speech function of offer which has no congruent form. However, a particular speech function can also be realized by mood choices beyond the congruent patterns. Halliday and Matthiessen (2004) classify the metaphorical representation of speech functions into two types. The first type is realized in the form of ideational projection, which means "the proposition or proposal is realized by a clause nexus of projection rather than by a simple clause. The interpersonal projection embodied in speech function has thus been realized as if it was an ideational projection" (Halliday and Matthiessen 2004: 630). Some other metaphorical expressions except projections are defined by Halliday and Matthiessen (2004) as other kinds of mood metaphor. One major type is the metaphorical realization of the speech function of command by declarative and interrogative mood (see Halliday & Matthiessen, 1999 for more details about Halliday's GM framework).

3.2 Research methodology

To address research questions, this study uses both quantitative and qualitative methods to analyze the selected three types of English political texts, including political reports, political speeches and political interviews. Totally, 15 texts form the corpus and each type of political discourse contains five texts. Furthermore, to guarantee the validity of the research results, all texts

selected are authentic by choosing them from government websites and publicly published books (for details of the dataset, see the Appendix). Both reports and speeches texts are actually political monologues which are structurally and semantically continuous, so they are much easier to be technically processed. With respect to interviews, however, they are typically dialogues consisting of a series of information exchanges around a given topic. For the convenience of analysis, the study omits the reporter's questions, which are actually all realized congruently, and only retains answers of interviewees to form a text which is roughly continuous in the structure. Additionally, it is necessary to clarify the way of annotating the text. First, the clauses are marked by double oblique lines, the clause complexes by triple oblique lines, and GM instances identified are underlined and italic. Second, the source of each example used in the paper is coded by indicating where the current example is drawn (e.g. Re.2 means No.2 report). Besides, some concepts frequently used in the selected examples and diagrams are abbreviated, like LD for lexical density, GI for grammatical intricacy.

4. ANALYSIS

4.1 Mode differentiation in various text types

In order to figure out the inherent relationships between GM and mode differentiation, it is necessary to present the differences in the mode of various types of political discourses first. As mentioned above, the measurement of the degree of grammatical complexity and lexical density can be used to distinguish modes since they can offer a delicate characterization to the lexicogrammatical features of texts in differing modes. The lexical density of each text

is quantified by dividing the total number of lexical items over total number of clauses. Lexical items refer to those word classes representing the speaker's experience of the world, including nouns, verbs, adjectives, adverbs. Pronouns, auxiliaries, prepositions and conjunctions are excluded, because they are functional words used to organize a text. Example 1 demonstrates the calculation of lexical density (lexical items underlined). By condensing the information into fewer clauses, the content of the text becomes more compacted and the lexical density increases, but on the other hand, the text may become grammatically less intricate, which is another way of looking at complexity. The grammatical intricacy is calculated by dividing the total number of clauses over the number of sentences in a text. This method is effective in that a sentence containing more clauses is usually structurally complicated than one with just one or two clauses. Example 1 illustrates the calculation of grammatical intricacy. The full results, arranged based on text types, of the lexical density and grammatical intricacy of 15 texts are set out in Table 1 (given correct to two decimal places).

(1) Re. 2

///These reforms aim to strengthen the Chinese Communist Party's (CCP) control over the military, //enhance the PLA's ability to conduct joint operations, //and improve its ability to fight short-duration, high-intensity regional conflicts at greater distances from the Chinese mainland.
///

LD = 23 lexical items / 3 clauses = 7.67 GI = 3 clauses / 1 clause complex = 3

Table 1 Lexical density and grammatical intricacy of English texts

English Text	Lexical items	Clause	Sentence	Lexical density	Grammatical intricacy
Re.1	463	40	30	11.58	1.33
Re.2	674	63	34	10.70	1.85
Re.3	421	37	21	11.38	1.76
Re.4	468	42	28	11.14	1.50
Re.5	537	51	28	10.53	1.82
Average	512.6	46.6	28.2	11.07	1.65
Sp.1	635	109	66	5.83	1.65
Sp.2	598	102	51	5.86	2
Sp.3	566	96	54	5.90	1.78
Sp.4	511	88	48	5.81	1.83
Sp.5	629	100	52	6.29	1.92

Average	587.8	99	54.2	5.94	1.84
In.1	551	114	58	4.83	1.97
In.2	452	98	40	4.61	2.45
In.3	399	115	55	3.47	2.09
In.4	509	110	57	4.63	1.93
In.5	549	111	42	4.95	2.64
Average	492	109.6	50.4	4.50	2.22

Table 1 suggests that different types of political discourse have distinctive degrees of lexical density and grammatical intricacy. For instance, political reports have the highest lexical density but the lowest grammatical intricacy. Based on the results, these texts can be arranged on a scale of combining density and intricacy from low to high values. As Figure 1 shows, political reports are lexically denser than political speeches, speeches lexically denser than political interviews. With regard to grammatical intricacy, however, it is interestingly noted that three text types do not form a scale as is expected. In some cases, political reports are grammatically more intricate than speeches, for example, English report text 5 has higher intricacy than speech text 3. To explain this, the study uses *t*-test in statistical tools SPSS to check out whether differences exist in three text types in terms of lexical density and grammatical intricacy. The results indicate that three types of political discourse are mutually distinctive with regard to lexical density (three tested *t*

values are smaller than 0.05, H_0 rejected), but concerning grammatical intricacy, no apparent differences are shown among them (three tested *t values* are larger than 0.05, H_0 fail to be rejected), which explains the strange manifestations displayed in Figure 1. As to the underlying reasons, it is possible that politicians or political personnel working in political institutions are all professionals or well-learned elites, texts produced by whom are less likely to be similar to those produced by ordinary people, even in such casual situations as interviews. These political texts are usually syntactically tight, employing many technical terms which can show their authorities and distance them from people inferior in social status. In spite of this unexpected phenomenon, it is still definite that three text types are distinctive in terms of mode. In the following discussions, lexical density will be taken as the main basis for the explorations of GM-mode relationships, with grammatical intricacy as an ancillary reference.

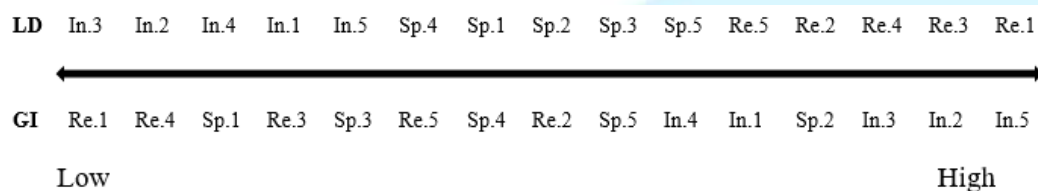


Figure 1 English texts arranged on density and intricacy scales

4.2 GM deployment in English political discourses

4.2.1 Identification of GM

Ravelli (1985) argues that GM can be counted at both micro and macro levels, which are respectively related to the syntagmatic independence and interdependence between individual GM instances. The following example illustrates GM at both levels. Metaphor at the micro level is marked by underline, while metaphor at the macro level is boxed off.

(2) Re.2

<China's November 2015 public confirmation> <of its intention> to build its first overseas military support facility ...

In example 2, there are 6 GM instances at the micro level, *China's* (Type 13); *November 2015* (Type 13);

public (Type 13); *confirmation* (Type 2); *its* (Type 13); *intention* (Type 2). These instances are syntactically independent of other process of GM. Meanwhile, the 6 individual GM instances cluster into two groups at the macro level, which are mutually independent metaphorically. Congruently, *China's November 2015 public confirmation* can be unpacked as *In November 2015, China publicly confirmed...*; *of its intention* can be reworded as another clause *...it intended...* However, it should be noted that the individual metaphors are interdependent within each cluster. The metaphorization of *confirmed* cannot take place without the transference of other components. In effect, GM at the macro level are those defined as GM syndromes, which has been introduced in the previous section. To narrow down the research scope, this study mainly identifies metaphors at

the micro level, which is more effective in manifesting to what degree each GM category is distributed in a text.

4.2.2 Quantification of GM

The research has carefully labeled each GM instance in 15 English texts and presented the overall scenario of GM use in each text in Table 2. After that, the research quantifies them in three ways to reveal more features. Firstly, ideational and interpersonal GM instances in each text are counted respectively with regard to category, and then the extent of GM use in each text is measured by dividing the total number of ideational and interpersonal GM instances over the total number of clauses of each text. In order to give a clearer demonstration, the extent of using ideational GM and interpersonal GM are calculated separately. Since the English corpus consists of three text types, the average extent of GM use in each text type has to be measured by dividing the number of GM instances over the number of clauses in that whole text type. In so doing, the study attempts to check out whether there exists difference in the

extent of distributing GM among three text types in differing modes. Table 3 shows the results.

Table 3 shows that the average degree of using GM in political reports is about 1.79, which means about 1.79 GM instance is deployed in each clause in political reports. The average extent of GM use in political speeches is about 0.52, and about 0.29 in political interviews, which are much lower than that in political reports. To verify there are genuine differences in the use of GM among three text types, *t*-test is used by dividing degrees of using GM of 15 texts into three groups based on the mode differentiation. The results indicate that these three text types are mutually distinguished in terms of GM use (three tested *t* values are smaller than 0.05, H_0 rejected). Like scaling the lexical density, the study arranges 15 texts with respect to GM degree along a continuum from low to high value in Figure 2. It can be seen that the GM deployment of these texts can definitely form a scale, with GM use in interviews lower than speeches, speeches lower than reports.

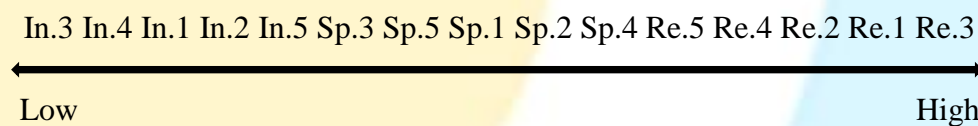


Figure 2 Scale of using GM in English political texts

Table 2 Deployment of GM categories in English political texts

Text	Type 1	Type 2	Type 3	Type 4	Type 5	Type 6	Type 7	Type 8	Type 9	Type 10	Type 11	Type 12	Type 13	Sum	GM. modality	GM. mood	Sum
Re.1	2	49	0	0	6	2	0	1	0	0	0	0	26	86	0	0	0
Re.2	15	38	2	0	6	10	0	2	0	0	0	0	28	101	0	0	0
Re.3	2	56	0	0	2	2	0	0	0	0	0	0	27	89	0	0	0
Re.4	8	25	0	0	10	2	0	0	0	0	0	0	17	62	0	0	0
Re.5	8	28	0	0	4	3	0	0	0	0	0	0	23	66	0	0	0
Sum	35	196	2	0	28	19	0	3	0	0	0	0	121	404	0	0	0
Sp.1	12	27	0	0	5	2	0	0	0	0	0	0	13	59	2	0	2
Sp.2	7	26	0	0	4	0	0	0	1	0	0	0	13	51	7	0	7
Sp.3	4	16	0	1	3	1	0	0	0	0	0	0	10	35	4	0	4
Sp.4	5	26	0	0	1	0	0	0	0	0	1	4	8	45	6	0	6
Sp.5	10	22	0	0	0	1	0	0	0	0	0	1	6	40	9	0	9
Sum	38	117	0	1	13	4	0	0	1	0	1	5	50	230	28	0	28
In.1	0	19	0	0	0	0	0	0	0	0	0	1	2	22	13	0	13
In.2	1	16	0	0	1	0	0	0	0	1	0	2	2	23	8	0	8
In.3	1	5	0	0	1	0	0	0	0	0	0	3	1	11	9	0	9
In.4	3	13	0	1	0	0	0	0	0	0	0	1	5	23	8	0	8
In.5	0	22	0	0	1	1	0	0	0	0	0	2	4	30	10	0	10
Sum	5	75	0	1	3	1	0	0	0	1	0	9	14	109	48	0	48

Table 3 Extent of GM use in each English political text

	Ideational GM	Interpersonal GM	Clause	Ideational GM Ratio	Interpersonal GM Ratio	GM. Ratio
Re.1	86	0	40	2.15	0	2.15
Re.2	101	0	63	1.60	0	1.60
Re.3	89	0	37	2.41	0	2.41
Re.4	62	0	42	1.48	0	1.48
Re.5	66	0	51	1.29	0	1.29
Average	80.8	0	46.6	1.79	0	1.79
Sp.1	59	2	109	0.54	0.02	0.56
Sp.2	51	7	102	0.50	0.07	0.57
Sp.3	35	4	96	0.36	0.04	0.41
Sp.4	45	6	88	0.51	0.07	0.58
Sp.5	40	9	100	0.40	0.13	0.49
Average	46	5.6	99	0.46	0.07	0.52
In.1	22	13	114	0.19	0.11	0.31
In.2	23	9	98	0.23	0.09	0.33
In.3	11	9	115	0.10	0.08	0.17
In.4	23	9	110	0.21	0.08	0.29
In.5	30	10	111	0.27	0.09	0.36
Average	21.8	10	109.6	0.2	0.09	0.29

The second way of quantifying GM instances concerns calculating the ratio of the number of GM instances in each category over the total number of GM instances in terms of text type based on the results in Table 2. As Table 4 shows, Type 1 (from quality to thing), Type 2 (from process to thing), Type 5 (form process to quality), Type 6 (form circumstance to quality) and Type 13 (from thing to quality) occur in all three text types, among which Type 2 has the highest frequency of occurrence. GM of Type 13 constitute the second highest frequency of occurrence, which involves the transference of various elements to modifiers of a thing. With regards to the differences among three text types, it can be noted that GM types occurring in political speeches are more diversified than other two text types, which may be tracked to the fact that reading speeches have characteristics both of formal reports and casual interviews. Another obvious difference worth noting is that political reports have more GM

instances in Type 5, Type 6 and Type 13, because they are all concerned with modifying things. In form writings, using these types, together with Type 2, is the best way to compact information, making the language more condensed and persuasive, which can be illustrated with example 3. In the suggested congruent version, the original clause is unpacked into three clauses, uncovering many hiding details, like the actor conducting arrests and detentions. Therefore, in the metaphorical expression, all the information concerning tense, modality and agent is omitted, transforming the process or event into a permanent entity or reality, which increases not only the lexical density of the clause, but also the persuasiveness of the text. This study does not calculate the ratio of interpersonal GM categories because all interpersonal GM instances occurring in political speeches and interviews are metaphors of modality.

Table 4 Ratio of each GM category in three English political text types

GM	Type 1	Type 2	Type 3	Type 4	Type 5	Type 6	Type 7	Type 8	Type 9	Type 10	Type 11	Type 12	Type 13
Re.	8.66%	48.52%	0.50%	0	6.93%	4.70%	0	0.74%	0	0	0	0	29.95%
Sp.	16.52%	50.87%	0	0.43%	5.65%	1.74%	0	0	0.43%	0	0.43%	2.17%	21.74%
In.	4.59%	68.81%	0	0.92%	2.75%	0.92%	0	0	0	0.92%	0	8.26%	12.84%

(3) Re.3

/// Many religious minorities report *arbitrary* (Type13) *arrests* (Type 2) and *prolonged* (Type 6) *detentions* (Type 2) *of their members* (Type 13)///

Suggested congruent version: /// Many religious minorities report // that the government arrests them arbitrarily, // and that has detained their members for a long time.///

The third way of GM quantification is first conducted by classifying 13 GM types into six groups based on the

elemental transfer as defined by Yang (2015: 125), namely, (1) shift to thing; (2) shift to quality; (3) shift to process; (4) shift to circumstance; (5) shift to modifier; (6) shift without congruent forms. After that, the study calculates the percentage by dividing the number of GM instances in each group over the total number of GM instances in each text type. The frequency of occurrence of GM instances in each group is demonstrated in Table 5.

Table 5 Percentages of six GM groups in three English text types

GM	Group 1			Group 2			Group 3		Group 4	Group 5		Group 6	
Text	Type 1	Type 2	Type 3	Type 4	Type 5	Type 6	Type 7	Type 8	Type 9	Type 10	Type 11	Type 12	Type 13
Re.		57.68%			11.63%				0.74%	0		0	29.95%
Sp.		67.82%			7.39%				0.43%	0		2.60%	21.74%
In.		74.31%			3.67%				0	0.92%		8.26%	12.84%

Table 5 indicates that group 1 (from other elements to thing) occupies the highest frequency of occurrence in each text type, which once again verifies Halliday and Matthiessen's claim that "the primary motif of ideational GM is the drift towards 'thing'" (Halliday and Matthiessen 1999: 263). Ravelli (1985) finds that the nominalization in English accounts for about one third of all GM instances. In the present data, however, the percentage of nominalization in each text type exceeds 50%, which may be interpreted as a particular feature of high specialization of political discourse. Another group with slightly lower frequency than group 1 is group 6, which concerns the transference of various elements to modifiers for expanding things. Special attentions should be paid to the different distributions in terms of percentages in group 1 and group 6 among three text types. In political reports, GM instances in group 1 occur less frequently than in other two text types, but GM instances in group 6 appear

with the highest frequency. In political interviews, however, the situation is the other way around. This indicates that, in the process of nominalization, some elements have transformed to modifiers of the nominalized entities simultaneously, which can be illustrated by example 3 above. For that matter, the lexical density will definitely increase, which conforms to the features of political reports. Nevertheless, in political interviews, many GM instances involving nominalization tend to occur independently, leading to the high percentage of nominalization but low frequency of modifiers.

4.2.3 Deployment of interpersonal GM

Since precious studies put too much weight on the investigations of ideational GM, this study examines the interpersonal GM deployment in English political discourses with an attempt to bring more features into light. According to Table 2, it is found that interpersonal GM instances do not appear in political reports, which

conforms to the fact that a report is a kind of formal writing without visual and aural contacts, thus lacking the process of negotiating meaning. The study summarizes the results of interpersonal GM instances in political speeches and interviews, and calculates the degree of deploying

each interpersonal GM category in each text type by dividing the number of GM instances over the total number of clauses in that text type. The results are shown in Table 6.

Table 6 Interpersonal GM in speeches and interviews

	Metaphor of modality			Metaphor of mood		
	Clause	GM	Ratio	Clause	GM	Ratio
Speech	495	28	0.06	495	0	0
Interview	548	48	0.09	548	0	0

Table 6 indicates that English political discourses primarily use grammatical metaphor of modality, without deployment of metaphor of mood. Metaphor of mood means the use of untypical moods to realize speech functions, which occurs out of communication etiquette and in some cases reflects the flexibility of the communication. In political occasions, like giving speeches or taking interviews, however, communication almost only involves in the exchange of information, like political figures giving facts, audience receiving information, and reporters asking for truth. In addition, out of caution and maintaining authority, political figures seldom breaks the discursive routines for fear of being misinterpreted by outsiders. These facts may contribute to the scarce use of metaphor of mood in political texts.

In the process of analyzing language materials, the study finds that the subtype of *probability* in modality metaphor is the only sort of interpersonal GM used in speeches and interviews. To reveal more details, the study selects some typical projecting clause structures indicating metaphor of modality, like *I think* and *I believe*, and respectively counts the total number of each structure type in both text types. The study then calculates their corresponding frequencies of occurrence. Table 7 shows the results.

These projecting clauses can be distinguished by the concept of modality. Halliday and Matthiessen (2004: 620) claim that one of the major variables of modality is “the value that attached to the modal judgement: high, median or low”. Among the selected structures, *I think*, *I guess* are

low in value, and *I believe* are in high values. Based on the criteria, Table 7 suggests that projecting clauses of high values appear more frequently in speeches than in interviews, while structures of low modality value are used more heavily in interviews. Fetzer’s (2014) research of political discourses also confirms that *I think* is the most frequent syntagmatic configuration in the interviews, *I believe* is the most frequent one in the speeches. The differences in deploying these two structures in distinctive spoken modes are related to their functions in communications and to the nature of text type. Words like *think*, *believe*, etc. are all cognitive verbs with different degrees of belief and adequate evidence. Structures of low degree of belief, like *I think*, have the function of negotiating meaning and referring indexically to the interactional plane of discourse, which conforms to the dialogic nature of interviews. This contributes most to the high extent of deploying such projecting clauses in interviews. In terms of speeches, however, Fetzer (2014: 89) points out that “in the monologic genre of argumentative political speech, there is hardly any need to refer indexically to the interactional plane of discourse, and there are hardly any negotiation-of-meaning processes”, which explains the much lower occurrence of structures of low value in speeches. By contrast, structures of high or median values, like *I believe*, are used relatively more frequently in speeches, because they do not fulfil any function on the interactional plane of discourse.

Table 7 GM instances of probability in English speeches and interviews

	Speeches		Interviews	
	Number	Ratio	Number	Ratio
I think...	9	0.32	45	0.94
I believe...	16	0.57	0	0
I guess...	1	0.04	3	0.06
Others	2	0.07	0	0
Total	28	1	48	1

5. DISCUSSIONS

Section 4.1 indicates that variations in mode can be best reflected in the complexity of text, namely, lexical density and grammatical intricacy. Therefore, an exploration of the relationships between GM and mode differentiation can be reasonably transferred into the investigation of relationships between GM deployment and the complexity of text. This study covers the analysis of both ideational GM and interpersonal GM, which are related to their respective functions of downgrading and upgrading a grammatical form. These corresponding relations may have different impacts on the organization of text, contributing distinctively to the degrees of lexical density and grammatical intricacy. For this reason, the study chooses to examine the relationships between GM and two kinds of complexity separately. More specifically, the study primarily investigates the relationships between ideational GM and lexical density, with the explorations of relationships between interpersonal GM and grammatical intricacy as a supplementary. It should be mentioned again that the first investigation excludes considering the relationships between ideational GM and grammatical intricacy, not only due to the unexpected pattern of grammatical intricacy scale in this study. Ravelli (1985: 76) also argues that ‘although grammatical metaphor

results in a lexical condensation which necessarily give rise to a high lexical density, the same process does not necessarily result in low grammatical intricacy’. This means that it is quite possible to have a text both with a high extent of GM deployment and a high grammatical intricacy. Therefore, it may be feasible to say that a text in the written mode is not always in low grammatical intricacy and that grammatical intricacy is not a golden principle for describing the complexity of text, but serving as an ancillary instrument.

5.1 The mapping relations between lexical density and ideational GM scales

The preceding part demonstrates that the lexical density and ideational GM deployment of three text types can formulate a delicate scale respectively. This section is to examine whether these two scales are comparable or conflated. It is known that the lexical density of a text reflects the choice made at the lexicogrammar stratum, whereas the use of GM is such a kind of choice at this stratum. Therefore, it is reasonably predicted that the lexical scale and the GM distribution scale should be correlated in some respect. To demonstrate it, the study combines these two scales to a single continuum with the value increasing from the left pole to the right pole, as shown in Figure 3.

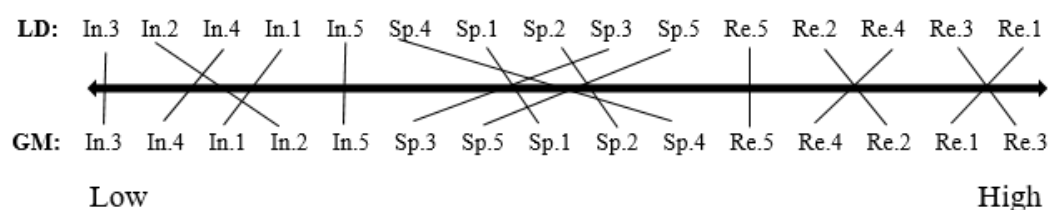


Figure 3 Mapping of density and GM scales in 15 texts

Figure 3 shows that there are crossovers within each text type, especially in speeches, but no crossovers transcending the boundaries between two neighboring text types. These crossovers indeed do not destroy the overall pattern where a text type with higher lexical density tends to have a higher degree of GM, because the differences between texts in the same text type on the scale are so small that they can be reasonably neglected. Despite of this, this study still shows a strong tendency that ideational GM distribution does correlate with lexical density. To verify the correlations, the study adopts the statistic means, *Pearson's Correlation Coefficient* test, to check out whether these two variables are highly interrelated. The 15 texts are ordered by corresponding the lexical density of each text to its extent of using ideational GM. The result is presented in Table 8, showing that the *r* value is 0.956, high enough to support the preceding argument that ideational GM distribution and lexical density are strongly correlated. In addition, the positive value indicates that the lexical density of a text, or more generally a text type in this study, increases with the extent of ideational GM.

Table 8 Correlations between LD and ideational GM in English texts

Correlations

		LD	GM
LD	Pearson Correlation	1	.956**
	Sig. (2-tailed)		.000
	N	15	15
GM	Pearson Correlation	.956**	1
	Sig. (2-tailed)	.000	
	N	15	15

** . Correlation is significant at the 0.01 level (2-tailed).

The description of the correlation between ideational GM and lexical density can be extended with mode differentiation included. Specifically, texts closest to the written pole of the mode continuum tend to have the highest lexical density and the greatest extent of ideational GM, and those closest to the spoken pole carry the lowest lexical density and the least use of ideational GM. In addition, texts taking an intermediate position on the mode scale, like political speeches in this study, possess the

degrees of lexical density and ideational GM deployment that are also standing at the middle of the lexical density and ideational GM scales. Such descriptions confirm the correlations between GM distributions and mode differentiation. No matter a meaning is realized congruently or metaphorically, both choices are at the lexicogrammar stratum, available to the speaker or writer. In a written mode situation, such as writing a political report, the writer tends to employ an abundant of GM, which in return contributes to the complexity of text. By contrast, a speaker uses a relatively limited number of GM to realize meanings in a language activity in the spoken mode.

5.2 Functional interpretations of GM-mode relationships

5.2.1 Effects of GM on the complexity of text

It has been displayed that the use of GM contributes to the complexity of a text, reflected in the increase in lexical density and in most cases the decrease in grammatical intricacy. The degree of using GM influences the extent to which a text is complicated, thus helping distinguish the mode of various text types. However, how such contributions of ideational GM to lexical density are achieved, and what are the effects of GM on the structure of the clause, are two questions to be answered.

Halliday (1987: 27) suggests that for spoken and written language “each one makes the world look like itself”, which indicates the fact that spoken languages tend to represent the world as doings or happenings, while written languages represent the world in the form of entities or things. A spoken text is typically organized in a congruent pattern with relationships between a series of processes. By contrast, a written text is organized metaphorically, whose internal relationships are those between participants. At the lexicogrammar stratum, these two types of relationships are realized as those between clauses and within clauses respectively. To be more specific, a ranking clause only represents one process. If two or more processes are to be related, they have to be realized as a clause chain with hypotaxis or parataxis relations and logical-semantic relations, forming the alleged clause complex. On the contrary, if the process meaning is realized metaphorically as a thing, then it will typically function as a participant in the clause. In this manner, two or more processes may be related within just one clause, avoiding the appearance of clause complex. Therefore, the metaphorical mechanism has the effect of condensing ideational information. The content that is congruently realized by two or more clauses, is now metaphorically transferred into one clause, leading to the increase in lexical density. Alternatively, if the condensed information is unpacked or reworded to several clauses, then the

relationships between participants will be reorganized as those between processes, resulting in the decrease in lexical density or increase in grammatical intricacy. The following examples extracted from three text types demonstrate such effects, presented with both metaphorical and suggested congruent versions.

(4) Re.2

China demonstrated a willingness (Type 1)// to tolerate higher levels of tension in the pursuit (Type 2) of its interests (Type 13), especially in pursuit (Type 2) of its territorial (Type 13) claims (Type 2) in the East and South China Sea //...

LD: 7.5 GI: 2

Suggested congruent version: China is willing to tolerate higher levels of tension, //to pursue its interests, //especially to pursue to claim // that territories in the East and South China Sea belong to China//...

LD: 4 GI: 4

(5) Sp.1

//But the long sweep of America has been defined by forward (Type 6) motion (Type 2), a constant (Type 13) widening (Type 5) of our founding creed (Type 13) to embrace all, and not just some.//

LD: 12 GI: 2

Suggested congruent version: Americans always move forward, // so this has defined //that America can sweep long. // Our founding creed is widening constantly, //so as to embrace all, not just some.//

LD: 2.8 GI: 2.5

(6) In.5

//The contrast (Type 2) between a government that won't even set out a spending review and an opposition (Type 2) that says on pensions, on pay, on benefits, here are some of the difficult things we're going to do, // I think (Modality)// that is radical.//

LD: 5.67 GI: 3

Suggested congruent version: //The government won't even set out a spending review, //and the opposition says something on pensions, on pays, on benefits. //They are contrasted in some way, //and this is some of the difficult things we're going to do. //I think// that is radical.//

LD: 3 GI: 2

In the analysis of corpus, it is found that these texts tend to use the highest proportion of GM Type 2, namely, from the process meaning to a thing. The metaphorical realization of the process may also lead to changes on other constituents of the clause, such as the participants involved in the process and the optional circumstances accompanying the process. Unpacking these metaphorical expressions can demonstrate such hiding transferences, which can be illustrated by the following instances.

(7) Re.3

p.

Metaphorical expression	widespread	censorship	of print and electronic media
	Epithet	Thing	Qualifier
	Process	Medium	
Suggested congruent version	censor	the print and electronic media	
			Circumstance
			widespreadly

(8) Sp.4

Metaphorical expression	The full	engagement	of the Scottish
	Epithet	Thing	Qualifier
	Agent	Process	Circumstance
Suggested congruent version	the Scottish	engaged	fully

(9) In.4

Metaphorical expression	his	opposition	to government	involvement...
	Deictic	Thing	Classifier	Thing
	Agent	Process	Agent	Process
Suggested congruent version	he	opposed	that the government	involved...

The above instances suggest that modifiers of the metaphorical thing, like Qualifier, Deictic and Epithet, can be congruently realized as Medium, Agent or Circumstance of the process, which indicates the syntagmatic interdependence between metaphorical things and their modifiers. This means that the use of a certain GM category, Type 2 in this case, may lead to the emergence of other GM categories. In fact, the co-occurrences of different GM categories are what Halliday and Matthiessen (1999) define as GM syndromes. In analyzing these texts, it is found that there is a high frequency of occurrence concerning the syndrome “Type 2+Type 13” or “Type 13+Type 2”, which is related to the transference of participants of the congruent process to modifiers of the metaphorical thing, like Qualifiers and Epithets. It is well known that when a process meaning is nominalized, the metaphorical thing has great potential to

be modified by other elements, which definitely increases the condensation of information.

In addition, such transferences caused by the use of GM affect the structure of the clause and the clause complex. As example 7 and example 8 show, the two metaphorical expressions are both nominal groups, which can be congruently reworded as two clauses. It means that a clause structure can be down-ranked to a group after metaphorization, because the core process has been transferred into a thing. Similarly, a clause complex can be down-ranked to a clause when its constituent clauses are metaphorically realized as groups, and these groups can function as participants in the new clause pattern, as shown in example 10. Besides, a clause complex can also be metaphorically realized as a nominal group directly, as illustrated in example 9.

(10) Re.3

Metaphorical expression	The Iranian regime's repression of its own people	includes	reports of over 800 political prisoners
	Participant	Process	Participant
	↑		↑
	clause		clause
Suggested congruent version	The Iranian regime repress its own people.		Over 800 political prisoners are reported to have been prisoned.

5.2.2 Effects of GM on the organization of text

Since the mode is primarily reflected in the textual metafunction of language, so the investigation of GM-mode relationships is also concerned with the relationships between GM and the textual metafunction. The textual metafunction refers to the organization of a clause, including its thematic structure and information structure. The previous discussions show that the use of GM have effects on the constituents of clause, changing its internal structure by downgrading grammatical units. In so doing GM may also be used to achieve a particular thematic structure or information focus of a clause, contributing to the variation on the organization of the text. In SFL, a Theme (topic Theme in Halliday's term here, see Halliday 1994) refers to the point of departure of a message, mainly realized by the element of a thing or a circumstance, but not a process meaning. However, if a writer or speaker wants to locate the process meaning at the first position of the message, this can only be achieved by using ideational GM, metaphorically realizing the process as a thing. In this

way, the metaphorical thing can function freely as a participant in a clause, even serving as the point of departure of the message. Example 11 illustrates the change in the thematic structure. Themes of two clauses are double underscored.

(11) Re.1

///Repression (Type 2) and coercion (Type 2) of organizations (Type 13) and individuals involved in civil and political rights advocacy (Type 2) as well as in public interest and ethnic minority issues remained severe. ///

Suggested congruent version (1): ///The government repress and coerce organizations and individuals involved in ..., //and this problem remained severe.///

Suggested congruent version (2): //Organizations and individuals (...) are repressed and coerced, //and this problem remained severe.///

It is clearly noted that the two suggested congruent versions respectively select the Agent and the Medium of the process as the departing point of the message, whereas the metaphorical expression makes the metaphorized thing

as the unmarked Theme. These choices are all available to the speaker, and each may have its own significance or expected effects. Equally significant, the deployment of GM may help to achieve a different information focus, in order to make a process meaning the unmarked new information. As noticed, changes in both thematic and information structures are related to the use of Type 2 (from process to thing), which explains again the highest extent of deploying this GM category. Ravelli (1985: 97) points out that ‘the aim of using metaphor is not to achieve a certain density or intricacy in the text, but to realize certain function of the language, the consequence of which are the particular complexity of the text’. In fact, GM is used to achieve its textual function of organizing the text in a way differing from the congruent pattern, which results in the compactness of information, thus the increase in the lexical density of the text. This is the typical choice made in a text closer to the written mode, while in a spoken text, there is no such high expectations or necessities in using GM. Apart from its textual function, the deployment of GM may have its own ideological considerations, especially in political discourses.

5.2.3 Ideological considerations of GM deployment

Since ideology cannot be ruled out in talking politics, and language is a powerful means to transmit ideologies, it is rewarding to investigate the connections between ideologies and the use of GM. The metaphorical and congruent forms are two different kinds of choices available to a writer or speaker, whose choice of one form over another may be based on some political or ideological considerations. The much higher extent of using GM in written political texts may highlight the ideological functions of GM.

In the first place, the highest degree of nominalization can increase the objectivity and persuasiveness of the text. Nominalization in the present study consists of four GM types: Type 1 (from quality to thing), Type 2 (from process to thing), Type 3 (from circumstance to thing) and Type 4 (from relator to thing), among which Type 2 occupies the largest proportion. When processes or qualities are metaphorically reconstrued as nouns, the agents or carriers may be deleted or backgrounded, which inevitably obscures or loses some semantic information. The obscuration or loss of semantic meaning are necessary in some aspects for increasing the objectivity of information. For instance, the deletion or backgrounding of the agent of a process avoids the disputes over the doer of the action. In the example 8 given above, the metaphorical form deletes the agent of the behavior, for fear that the potential readers may resent or attack this expression. Although it is possible to retrieve the agent through unpacking based on the co-text, like the suggested congruent version 1 offered, it is still difficult to ensure the exactness of such retrieval, since many possibilities of unpacking exist. In addition, the finite elements of a process disappear when it is

nominalized, which can transform a temporal happening to a prominent entity. The nominalized process is detached from the restriction of time or modal elements and becomes an established fact or event, avoiding possible disputes from the audience.

Second, ideational GM can be used to foreground some information based on the political figures’ needs. The study previously has discussed the textual function of GM in changing the Theme or information focus of the message, which may help the writer or speaker achieve a particular thematic or information structure to stress some information. In political discourses, the politicians always want to convey and emphasize what they deem the most important and favorable messages, or ‘misguided ideas’ in van Dijk’s term (van Dijk 2011: 381), to the audience, which may assist them to realize their political goals or legitimate the status quo. To achieve this, the use of metaphorical forms become the best choice, especially in the form of nominalization. After an element is nominalized, the writer or speaker can organize the message as will by deciding the starting point of the message and the new information. For instance, in example 12, drawn from ex-president Barack Obama’s State of the Union address in 2016, with ‘*further investment*’ as the Theme after the process of nominalization, Obama could not only stress what he had done during his term of office, but also help deliver the message that if Americans voted for the president candidate from the Democratic Party, his policies and achievements could be carried forward.

(12) Sp. 2

And with *further* (Type 13) *investment* (Type 2) in infrastructure and early childhood education and basic research, I’m confident that such progress will continue.///

Third, metaphorical expressions can increase the authority of the political figures and alienate them from the audience of the text. In previous studies on scientific texts, Halliday (1999) argues that GM has the feature of exclusiveness and ritualistic power, which distances the readers from the experts. This effect can be gained by simply nominalizing a certain element, which causes the loss or obscuration of some semantic relations. Likewise, in political discourses, some semantic relations become ambiguous or abstract after nominalization, and it is difficult to reconstrue them unless you have been informed of the backgrounds. For instance, expressions like ‘*the appointment of judges*’, ‘*proposed reforms*’, ‘*public confirmation*’ all have more than one interpretation. ‘*Public confirmation*’ can be reworded as ‘*confirm publicly*’ or ‘*the public people confirm*’. Therefore, the metaphoric mode does have the function of widening the divide between those who have the access to the backgrounding information and those who do not.

5.3 Relationship between Interpersonal GM and Grammatical Intricacy

It is known that the high grammatical intricacy is usually a typical feature of the spoken language, in which the message is usually scattered over several clauses. These clauses are combined with parataxis or hypotaxis relations and logic-semantic relations to form clause complexes. Interpersonal GM, unlike ideational GM's downgrading function, has its own function of upgrading grammatical forms by bringing in the projecting clause. For this reason, it can be predicted that the use of interpersonal GM can contribute to the grammatical intricacy of the text. Although the grammatical intricacy scale is not very typical in distinguishing three text types in this study, the deployment of interpersonal GM can still help differentiate distinctive modes. According to Table 2 and Table 6, interpersonal GM does not appear in political reports, and there are differences in terms of using interpersonal GM between the political speeches and interviews. To examine whether the use of interpersonal GM varies with the degree of grammatical intricacy, the study uses *Pearson's Correlation Coefficient* to assess the correlation between these two variables. The result is presented in Table 9, showing that the *r* value is 0.556, which is statistically significant at the 0.01 level. It means that the variable of grammatical intricacy is related to the variable of interpersonal GM, and the degree of grammatical intricacy increases with the extent of using interpersonal GM. It is noted that the *r* value is not as remarkable as that in previously accessing the correlations between ideational GM and lexical density, which may be due to the irregularities of grammatical intricacy in the present study. Nevertheless, the contributions of interpersonal GM to the intricacy of text cannot be denied.

Table 9 Correlations between GI and interpersonal GM in English texts

Correlations

		GI	In.GM
GI	Pearson Correlation	1	.556*
	Sig. (1-tailed)		.048
	N	10	10
In.GM	Pearson Correlation	.556*	1
	Sig. (1-tailed)	.048	
	N	10	10

*. Correlation is significant at the 0.05 level (1-tailed).

6. CONCLUSION

With an intention to extend the understanding of the phenomenon of GM, this study has investigated the

relationships between GM and mode in English political discourses. After defining the mode scale and the GM distribution scale, the study elaborately investigates the relationships between GM and mode by reasonably converting their relationships to those between GM and complexities of text. To achieve this, the study first establishes the mapping relations between the lexical density scale and the ideational GM scale and then assesses the correlations between them with statistical means. The results reveal a strong tendency that lexical density increases with the extent of ideational GM across different political text types. Although the correlations tested between interpersonal GM and grammatical intricacy are not as striking as those between ideational GM and lexical density, the contributions of interpersonal GM to grammatical intricacy of text can still be detected.

Based on this, the study interprets how GM relates to mode from functional perspectives by considering the GM's contributions to the complexity, organization and ideological effects of text. The high extent of using ideational GM contributes to the lexical density of the text for its textual function, which is the typical feature of texts closer to the written pole of the mode scale. By contrast, texts that deploy more interpersonal GM are much closer to the spoken pole, based on which the political speeches and interviews are further differentiated. The interpretations of ideological functions of ideational GM indicate that such GM are used more frequently in written texts, because it is more convenient for political figures to obscure some semantic relations and background information, thus distancing them from the potential audience. Meanwhile, their authorities can be maintained and political goals are easier to be achieved. However, in occasions like speeches and interviews with more visual and aural contacts, it is not necessary for politicians to use too many ideational GM out of maintaining interpersonal relations and dialogic alignment. The study has also verified the correlations between interpersonal GM and grammatical intricacy, which may account for the function of interpersonal GM in distinguishing text types in different modes.

This research not only further confirms Ravelli's (1985) argument about the GM-mode relationships, but also increases our understandings on how GM connects to the register variable of mode in a more convincing manner. In addition, the detailed discussions can bring many features of political discourses into light, which may contribute to the study of discourses in the political field. Nevertheless, this study is a small-scale research serving as a reference for future studies. In order to find out more valuable characteristics in terms of GM deployment and its relations to the mode variable, it may be of great academic significance to investigate whether the way GM relates to mode differentiation varies from language to language.

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Appendix Source of dataset

Report 1	Country Reports on Human Rights Practices for 2016 (China)	https://www.state.gov/j/drl/rls/hrrpt/humanrightsreport/index.htm#wrapper
Report 2	Annual Report to Congress: Military and Security Developments Involving the People's Republic of China 2016	https://www.defense.gov/Portals/1/Documents/pubs/2016%20China%20Military%20Power%20Report.pdf
Report 3	Report Pursuant to the Comprehensive Iran Sanctions, Accountability, and Divestment Act of 2010 (CISADA), as Amended	https://www.state.gov/e/eb/rls/othr/2017/270917.htm
Report 4	Quadrennial Defense Review 2014	http://archive.defense.gov/pubs/2014_Quadrennial_Defense_Review.pdf
Report 5	2016 Fiscal Transparency Report	https://www.state.gov/e/eb/ifd/oma/fiscaltransparency/260301.htm
Speech 1	President Barack Obama's Prepared Farewell Address	https://www.nbcnews.com/news/us-news/read-president-barack-obama-s-prepared-farewell-address-n705536
Speech 2	Barack Obama's Final Address to the United Nations General Assembly	http://www.sohu.com/a/114885383_498158
Speech 3	President Barack Obama's State of the Union address (2016)	http://www.xinhuanet.com/world/2016-01/14/c_128627997_2.htm
Speech 4	David Cameron's resignation speech	http://www.xuexila.com/yanjianggao/fanwen/975795.html
Speech 5	David Cameron's Inauguration Address (2010)	http://yingyu.xdf.cn/201209/9102165.html
Interview 1	My Politics is Supported by My Belief---reporter interviews Barack Obama	Wang Y X ed. (2013) Top talk with British and American political elites. Beijing: China zhigong publishing house.
Interview 2	Jim Lehrer interviews president Obama	Wang R Z ed. (2012) Interviews with Barack Obama. Nanjing: Yilin Press.
Interview 3	Truth will come out finally --- reporter interviews Hilary Clinton	Wang Y X ed. (2013) Top talk with British and American political elites. Beijing: China zhigong publishing house.
Interview 4	We can't cut our way---- reporter interviews Barack Obama	Wang Y X ed. (2013) Top talk with British and American political elites. Beijing: China zhigong publishing house.
Interview 5	We need to focus on pay, pensions and benefits---reporter interviews David Cameron	Wang Y X ed. (2013) Top talk with British and American political elites. Beijing: China zhigong publishing house.