

## Exploring the Diachronic and Genre Distributions of Interpersonal Metaphor: A Corpus-Based Study

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### Abstract

Interpersonal metaphor opens up new domains of meaning potential. However, up till now, there has been little systematic research on interpersonal metaphors. This research attempts to compare the diachronic and synchronic distributions of interpersonal metaphors and their congruent forms in the COHA and the COCA. It is found that the diachronic distributions of interpersonal metaphors and their congruent forms are complementary: Interpersonal metaphors occur mostly in spoken texts, with fiction, newspaper, magazine and academic texts following. The reason for the lowest frequency of interpersonal metaphors across genres is the prevalence of nominalisations that package information of clauses in academic texts. Nominalisations creating ideational metaphor reduce the negotiability of language and increase the objectification of language, whereas explicit modalities which are typical types of interpersonal metaphor shift non-negotiable into negotiable propositions. It is hence concluded that it is negotiability rather than nominalisation that functions as an indicator of text technicality.

**Keywords:** interpersonal metaphor; corpus-based; negotiability; technicality

### INTRODUCTION

Grammatical metaphor is the phenomenon “whereby a set of agnate (related) forms is present in the language having different mappings between the semantic and the grammatical categories” (Halliday & Matthiessen, 1999, p. 7). Example (1) is quoted from Halliday (1994, p. 345).

- (1) a. In the evening the guests ate ice cream and then swam gently.  
b. The guests' supper of ice cream was followed by a gentle swim.

The clause complex in example (1a) and the simple clause in example (1b) at the lexicogrammatical stratum realize the same sequence at the semantic stratum. The two sentences construe the same meaning. Therefore, example (1a) is the congruent mode of realization and example (1b) is the metaphorical mode of realization.

Grammatical metaphor in the Hallidayan sense is put into two categories: ideational metaphor and interpersonal metaphor. Ideational metaphor is of particular importance in scientific writing, especially in the form of nominalised processes (Halliday, 1994; Halliday & Martin, 1993). Nominalisation producing experiential metaphor and verbalization producing logical metaphor are closely interrelated: nominalisation comes first, and verbalization is induced by nominalisation (He & Wen, 2017). Verbalization is not only genre sensitive but also discipline sensitive (He & Yang, 2018).

Grammatical metaphor can be used to illuminate the features of scientific English (Halliday & Martin, 1993). The most widely known pattern of ideational grammatical metaphor is nominalisation, or the reconstrual of congruent processes as static Things. As a kind of grammatical metaphor, interpersonal metaphor should have the same characteristic features of ideational metaphor. This study hereby work on the hypothesis that the diachronic distribution of the congruent realizations and that of the metaphorical realizations are complementary, and that interpersonal metaphor tends to occur mostly in scientific texts.

To test this hypothesis, we will conduct a corpus-based quantitative study on the diachronic and synchronic distributions of interpersonal metaphor. We shall first conduct a literature review in Section 2, then introduce some preliminary notions about grammatical metaphor, especially those about interpersonal metaphor in Section 3. We shall introduce the methodology in Section 4. The findings on the diachronic and synchronic distributions of interpersonal metaphor will be presented in Sections 5 and 6 respectively. Section 7 will be the discussion of the findings.

## LITERATURE REVIEW

Black (1962) claims that views of metaphor consist of the substitution view, the comparison view and the interaction view. "When we use a metaphor we have two thoughts of different things active together and supported by a single word, or phrase, whose meaning is a resultant of their interaction" (Richards, 1936, p. 93). Therefore, among these views of metaphor, the significance of the interaction view is that it "offer[s] some important insight into the uses and limitations of metaphor" (Black, 1962, p. 38).

With the development of modern theories of metaphor, some scholars have conducted the researches with different focuses on the interaction view of metaphor. Cognitive linguists regard metaphor as a mental phenomenon (Lakoff & Johnson, 1980, Lakoff, 1993), "which metaphors we have and what they mean depend on the nature of our bodies, our interactions in the physical environment, and our social and cultural practices" (Lakoff & Johnson, 1980, p. 247). They put the focus of metaphor study on the interactions with other people and with our physical and social environments. Based upon research findings on simulation, cognitive psychologists focus on the relationship between metaphor and interaction from the point of neural science (Barsalou, 2008; Gibbs & Matlock, 2008; Kintsch, 2008).

Within the field of systemic functional linguistics (SFL), scholars employ the term "interpersonal metaphor" to probe the interaction view of metaphor. Halliday claims that language can be organized as an interactive event involving speakers/writers and

listeners/readers. This function of the language is referred to as the interpersonal function into which Halliday incorporated the notion of interpersonal metaphor. Systemically grammatical metaphor, consisting of interpersonal metaphor and ideational metaphor, “leads to an expansion of the meaning potential: by creating new patterns of structural realization, it opens up new systemic domains of meaning” (Halliday & Matthiessen, 2004, p. 626). For example, Yang (2013) conducted a corpus-based study of interpersonal metaphor in spoken Chinese, developing a framework for the identification and categorization of interpersonal metaphor in Chinese, exploring the deployment of interpersonal metaphor in different registers in Chinese.

“The frame of quoting oneself in the present often leads to a particular kind of grammatical metaphor, in which the representation of the act of saying is made to function as an interpersonal comment, for example: I must say, this is beautiful” (Davidse, 1999, p. 333). The particular kind of grammatical metaphor is the interpersonal metaphor which “is used to achieve a specific interpersonal effect” (Davidse, 1999, p. 333). Davidse (1999) also argues against the misconception which assigns speech act meaning to mood structure.

Martin (2008) proposes that the interpersonal texturing needs to be considered when the interpersonal metaphor is under discussion. He further explores the prosodic realization of interpersonal meanings. Matthiessen (1995, p. 502) claims that the interpersonal metaphor can be realized by projection, proposition or proposal can be modalized or modulated by being embedded. His view on interpersonal metaphor is mainly illustrated in Halliday & Matthiessen (2004, 2014). O’Halloran (1996) considers marked realization of mood as the metaphorical realization of speech functions or interpersonal metaphor. Hewings & Hewings (2002) discuss the anticipatory-*it* lexical bundle, the most extensively explored pattern of interpersonal metaphor. Hewings & Hewings (2002) presents three interpersonal roles of these interpersonal metaphors which are placed in theme position of a clause: hedges, attitude markers and emphatics. Based on these studies, several studies have explored these interpersonal metaphor across different registers (Biber & Barbieri, 2007) and different fields (Hyland, 2008).

Based on a general semiotic-functional characterization of the interpersonal sign, Taverniers (2008, p. 106) defines interpersonal metaphor “as a construction type based on a doubling of semiosis: a doubling of scoping (in its structural dimension) and a doubling of grounding (in its semantic dimension)”. Taverniers (2008) argues that interpersonal grammatical metaphor and grammaticalization are “intricately connected at two levels. At the theoretical-conceptual level, metaphoricality and codification provide complementary perspectives on synchronic variation and diachronic ‘change’. At the descriptive level it is shown that interpersonal grammatical metaphors can be seen as a breeding ground for grammaticalization” (Taverniers, 2018, p. 164). Liardet (2018) investigates the use of evaluation and stance by Chinese EFL learners in academic texts through the learners’ deployment of interpersonal grammatical metaphors. This paper also identifies key areas for pedagogical intervention.

Yang (2019) revisits interpersonal metaphor in terms of identification, categorization and syndrome. The study uses Context-first Principle and AS IF Principle to identify both

metaphors of mood and metaphors of modality. With these principles, categories of interpersonal metaphor and the metaphoric syndrome will be clearly drawn. "One task is further exploration of interpersonal systems in the languages of the world, in order to get closer to seeing the variation and similarities" (Davidse & Simon-Vandenberg, 2008, p. 19).

### A sketch of interpersonal metaphor

Proposed by Halliday (1985, 1994) and Halliday & Matthiessen (2004, 2014), Grammatical metaphor refers to "the expression of a meaning through a lexicogrammatical form which originally evolved to express a different kind of meaning" (Thompson, 2004, p. 165). Ideational metaphor consists of experiential and logical metaphor. Interpersonal metaphor is embodied on system of modality and that of mood. According to the semantic function, interpersonal metaphor is categorized into two types, namely, metaphor of mood and metaphor of modality.

Modality refers to a mood system in which a language user can intrude on his/her message, expressing attitudes and judgment of various kinds. The basic distinction that determines how each type of modality will be realized is the orientation: that is, the distinction between subjective and objective modality, and between the explicit and implicit variants. As regards metaphor of modality, "the explicitly subjective and explicitly objective forms of modality are all strictly speaking metaphorical, since all of them represent the modality as being substantive proposition" (Halliday, 1994, p. 362). According to the different modality orientations, modal expressions will have different realization forms, such as:

- (2) a. Mary probably knows.  
b. I think Mary Knows.
- (3) a. Fred usually sits quite quiet.  
b. It's usual for Fred to sit quite quiet.
- (4) a. John is supposed to go.  
b. It's expected that John goes.
- (5) a. I will give you a hand.  
b. I wish that I could give you a hand.

Examples (2), (3), (4), (5) respectively express probability, Usuality, obligation and inclination of modality. Examples in (2a) to (5a) are congruent forms which is realized by modal elements in the clauses. Examples in (2b) to (5b) are metaphorical forms which is realized by projecting clauses in clause complexes. According to modality orientations, (2b) and (5b) are explicit subjective, (3b) and (4b) are explicit objective. The types are illustrated by Halliday (1994, p. 358) in Table1.

**Table 1.** Types of metaphors of modality illustrated by Halliday (1994, p. 358)

Type	Congruent	Metaphorical
Proposition	Probability Mary probably knows.	I think that Mary knows.

	Usuality	Fred usually sits quite quiet.	It's usual for Fred to sit quite quiet.
Proposal	Obligation	John is supposed to go.	It's expected that John goes.
	Inclination	I will give you a hand.	I wish that I could give you a hand.

Metaphors of modality can also be realized through expression of nominalisation. Nominalisation is “not one but two steps away from the most congruent wording” (Thompson, 2004, p. 234). Mood is the system for symbolic exchange of commodities between speaker and listeners. Mood expresses the speech functions. Metaphors of mood embody compound of speech function. In the metaphorical realization of mood, “the meaning comes from the combination of both form and function” (Thompson, 2004, p. 231). The metaphorical realization of speech functions makes it possible to expand the realization of speech functions.

In Halliday's view, mood can be classified into indicative and imperative mood, the indicative mood can further be divided into declarative and interrogative. Mood performs the basic speech functions: statement, command, offer and question. Metaphor of mood refers to the remapping between moods and speech functions which are associated with the exchange system of language. Some functions are metaphorically realized by different mood. Typical metaphor of mood is illustrated by Halliday (1994, p. 365) in Table 2.

**Table 2.** Some typical metaphors of mood illustrated in Halliday (1994, p. 365)

Type	Functioning as	Congruent	Metaphorical
Command	Warning	Don't...	I wouldn't...if I was you
Modalized offer	Threat	Maybe I'll...	I've a good mind to...
Modulated command	Advice	She should...	She'd better...

Giving, demanding, goods-&-services, and information, the four variables define the four primary speech functions of offer, command, statement and question. The four functions are realized as declarative, interrogative, and imperative. Statement and declarative, questions and interrogative, command and imperative, interrogative and declarative are congruent pairs. When there is a mismatch between these congruent pairs, mood metaphors occur. For example, a statement clause is realized metaphorically by an interrogative clause.

Grammatical metaphor plays significant role in constructing technicality in scientific text (Martin, 1993). Nominalisation is a powerful resource for creating grammatical metaphor which is an economical means of packaging information. Therefore, nominalisation is a common feature of scientific text because nominalisation gives scientific text “an appearance of solidity, stability and fixed factuality” (Banks, 2005, p. 350). Based on the above analysis, grammatical metaphor is considered as an indicator of text technicality. Technicality is “a graded rather than a binary quality” (Copeck et al., 1997, p. 393). In the present research, the technicality refers to the degree of scientificity or academicity of text.

## METHOD

In the research the Corpus of Historical American English (COHA) and the Corpus of Contemporary American English (COCA) is employed. The COHA is the largest structured

corpus of historical English. The COHA contains more than 400 million words of text from the 1810s to the 2000s and the corpus is balanced by genre decade by decade. The COCA is the large, genre-balanced corpus of American English. The corpus contains more than 560 million words of text and it is equally divided among spoken, fiction, popular magazines, newspapers, and academic texts. We write search queries according to the query syntax to retrieve constructions relevant to interpersonal metaphor and its congruent mode in the two corpora with the help of convenient search tools.

### Diachronic distribution of interpersonal metaphor

In this section, we will compare the diachronic distribution of interpersonal metaphor with that of their congruent forms in the COHA. In order to ensure the accuracy of the data, we select the “*I think*”, “*I suppose*”, “*I believe*” projecting clauses. Therefore, we wrote the following search queries (SQ):

SQ1: must|may be|have

SQ2: .!|; I [r\*] think|suppose|believe

We use SQ1 to retrieve the propositions which contain the “*must*” or “*may*”. They are the congruent forms. We use SQ2 to retrieve the propositions which contain the “*I think*”, “*I suppose*”, “*I believe*” projecting clauses. They are the metaphorical forms.

Then the result is showed in Table 3, 4 and Figure 1.

**Table 3.** Diachronic distributions of “*must/may*” in the COHA

Section	Raw Frequency	Per Mil
1810	1660	1405.34
1820	8026	1158.63
1830	14763	1071.76
1840	16892	1052.57
1850	16990	1031.47
1860	17108	1003.12
1870	17595	947.89
1880	19696	969.48
1890	17540	851.42
1900	20712	937.30
1910	21038	926.76
1920	21095	822.30
1930	19012	772.76
1940	18504	759.98
1950	16646	678.19
1960	16544	689.99
1970	14988	629.35
1980	13896	548.90
1990	13973	500.08
2000	11708	395.98

**Table 4.** Diachronic distributions of projecting clause (*"I think/I suppose/I believe"*) in the COHA

Section	Raw Frequency	Per Mil
1810	28	23.70
1820	256	36.96
1830	527	38.26
1840	422	26.30
1850	860	52.21
1860	1107	64.91
1870	1244	67.02
1880	1370	67.43
1890	1253	60.82
1900	1321	59.78
1910	1533	67.53
1920	1605	62.56
1930	1954	79.42
1940	1925	79.06
1950	1922	78.31
1960	2254	94.01
1970	2588	108.67
1980	2314	91.40
1990	2911	104.18
2000	2617	88.51

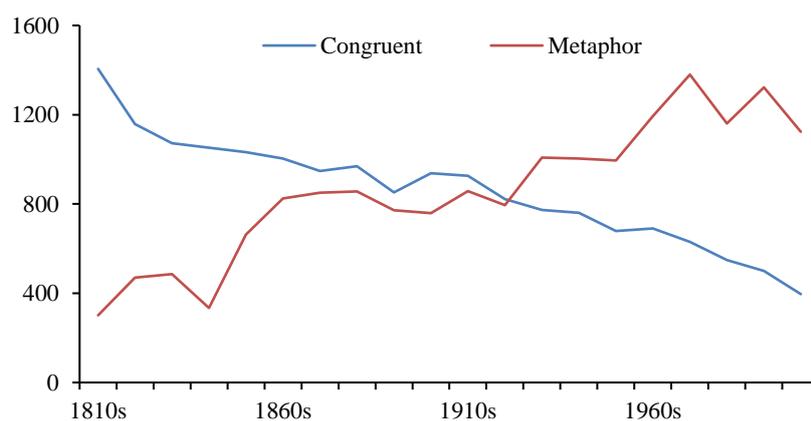
**Figure 1.** Diachronic distributions of *"must/may"* and projecting clause (*"I think/I suppose/I believe"*) in the COHA

Figure 1 shows that interpersonal metaphors are steadily increasing over time, while congruent forms are steadily decreasing. The two groups of data are significantly negatively correlated at the 0.01 level ( $p=0.000$ ), indicating that the increase of interpersonal metaphor is compensated for by the decrease of congruent form. The result

is consistent with the hypothesis of the study. That is, the diachronic distribution of the congruent realizations and that of the metaphorical realizations are complementary.

### Synchronic distribution of interpersonal metaphor

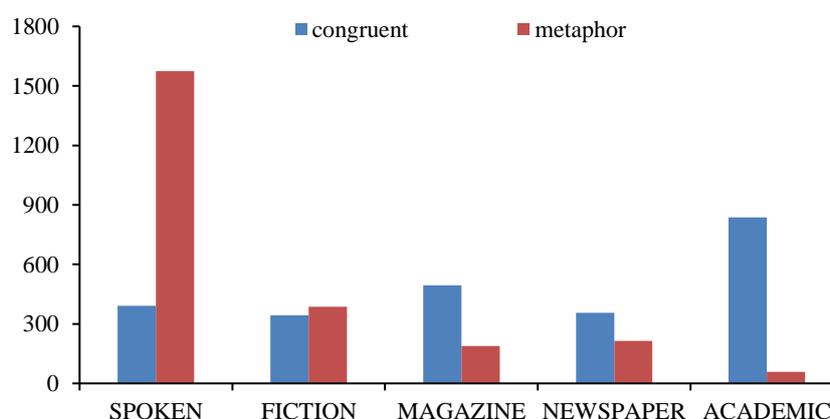
In this section, we will investigate the synchronic distribution of interpersonal metaphor in the sub-corpora of the COCA, i.e. spoken, fiction, magazine, newspaper and academic. We will compare the genre distribution of interpersonal metaphors with that of their congruent forms. We also select the “I think”, “I suppose”, “I believe” projecting clause, and use SQ2 to retrieve the projecting clause. Then the result is showed in Tables 5 and 6 and Figure 2.

**Table 5.** Genre distributions of projecting clauses (“I think”, “I suppose”, “I believe”) in the COCA

Section	Raw Frequency	Per million
Spoken	61571	527.38
Fiction	14478	129.45
Magazine	7436	63.36
Newspaper	8084	71.54
Academic	2183	19.59

**Table 6.** Genre distributions of *must/may* in the COCA

Section	Raw Frequency	Per million
Spoken	45730	391.70
Fiction	38425	343.56
Magazine	58051	494.67
Newspaper	40230	356.03
Academic	93218	836.71



**Figure 2.** Synchronic distributions of “*must/may*” and projecting clause (“I think/I suppose/I believe”) in the COCA

The result is inconsistent with the hypothesis. That is, the frequency of interpersonal metaphor is not most in academic texts, but the least. Figure 2 shows that the

interpersonal metaphors occur mostly in spoken texts, with fiction, newspaper, magazine, academic following.

## DISCUSSION

In this section, we will discuss the findings of the research in section 5 and 6, including the diachronic and synchronic distributions of interpersonal metaphors and that of their congruent forms in the COHA and the COCA.

Although grammatical metaphor in Hallidayan sense includes interpersonal metaphor and ideational metaphor, interpersonal metaphors have different stylistic tendencies. Ideational metaphors tend to appear in academic texts, while interpersonal metaphors do not tend to appear in spoken texts. Academic texts are characteristic of objective language, and nominalisation achieves the objectivity of language. Nominalisation packages the meaning of a clause into a nominal group which realizes a proposition at the interpersonal domain and becomes non-negotiable. The non-negotiability increases the objectification of language. Interpersonal metaphors unpack non-negotiable into negotiable propositions. Therefore, negotiability is an indicator of text technicality.

The result of nominalisation is to change negotiability to non-negotiability and eliminate negotiability. "By removing the option of a Mood, a nominalised process has been made non-negotiable. This is intimately connected with the fact that it is also 'thingified' by being expressed as a noun" (Thompson, 2004, p. 172). Therefore, after being packaged into nominalisation, mood disappears, and there is no negotiation if the clause has no mood. The absence of negotiability guarantees the objectification of language, and objectification is the feature of the academic texts. "The non-negotiability associated with nominalisation can clearly be a powerful weapon in cases where the speaker or writer wishes, for whatever reason, to avoid negotiation, with its possible outcome of rejection" (Thompson, 2004, p. 172). Therefore, the final judgment of technical indicators of text is not nominalisation, but negotiability.

Interpersonal metaphor extracts subjective modality, emphasizes subjectivity, and manifests subjective will in the form of projected clauses. However, explicitness is missing in the academic texts, so interpersonal metaphor is not inclined to appear in the academic texts. Therefore, negotiability is an important indicator of text technicality. Interpersonal metaphor tends to appear in non-scientific texts, such as spoken and fiction texts.

## CONCLUSION

As one of the three metafunctions, interpersonal meaning plays an important role in systemic functional linguistics. However, there has been little systematic research on interpersonal metaphor. This paper is a corpus-based quantitative study on the diachronic and synchronic distributions of interpersonal metaphor in the COHA and the COCA. It is found that the increase of interpersonal metaphor is compensated for by the decrease of congruent form. The diachronic distribution of the interpersonal metaphors and that of the congruent forms are complementary. Through synchronic distribution analysis, it is found that interpersonal metaphors occur mostly in spoken texts, with

fiction, newspaper, magazine and academic following. The highest frequency of interpersonal metaphor is not in academic texts as is hypothesized. Nominalisation is a powerful resource for creating ideational metaphor. Nominalisation packages negotiability into non-negotiability, so it increases objectification of the language. Interpersonal metaphors unpack non-negotiable into negotiable propositions. Therefore, the final judgment of technical indicators of text is not nominalisation, but non-negotiability caused by nominalisation.

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