

# An Analysis of Explicit Subjective Modality Metaphors in Discussion Section of Linguistics Research Articles

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*Received: 10 September 2021 Accepted: 2 October 2021 Published: 15 October 2021*

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## Abstract

Based on Halliday's theory of Grammatical Metaphor in Systematic Functional Linguistics (SFL), this paper delves into the distribution features as well as interpersonal meanings of modality metaphor in discussion section of Linguistics Research Articles (RAs). The discussion sections of 60 RAs in Applied Linguistics (2016-2020) were selected and the classification of explicit subjective modality metaphor from Halliday Matthiessen, Huang and Fan was adopted in current study. The results show that epistemic modality metaphors take up the highest proportion in explicit subjective modality metaphor (84.8

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**Index terms**— explicit subjective modality metaphor, linguistics research articles, interpersonal meanings.

## 1 Introduction

Grammatical Metaphor (GM), as a critical link between semantic level and lexicogrammatical level, has played a pivotal role in Systematic Functional Linguistics since it was proposed by Halliday in 1985 (Halliday, 1985; Cong, 2014: 74). According to Halliday (1985: 351), GM could be divided into Ideational Grammatical Metaphor and Interpersonal Grammatical Metaphor. The former one is mainly manifested as transitivity and realized by nominalization and verbalization while the latter consists of Mood Metaphor and Modality Metaphor. Stupendous research has been conducted upon Ideational Grammatical Metaphor with nominalization in its core (Halliday, 1999; Hu & Yan, 2001). By contrast, scant research has been concentrated on modality metaphor. Modality referred to intermediate degrees such as "sometimes" and "perhaps" between positive and negative poles (Fan, 2001: 139) and acts as a major exponent of interpersonal function of language (Chang, 2001). When the speaker intends to show his opinion regarding possibility, modality is, in this case, coded as modal elements like "must," "usually," which are congruent realization of modality. Halliday supposed that the most congruent expression of modality is realized by modal verbs or adjuncts (Hu, 2020: 42). Comparatively, incongruent realization of modality manifests in a projected or embedded clause, which is modality metaphor (Halliday & Martin, 2004). To subsume modality metaphor under modality system, Halliday came up with explicit subjective and objective modality metaphors. By using explicit subjective modality metaphor, the expression of modality becomes a projection of speakers or authors' stance. Namely, in explicit metaphorically expressed modality, subjectivity is expressed by "I" or "we" (Fan, 2001: 153).

Discussion Section in Empirical Research Articles (RAs) is crucial in expounding the achievements and practical value of the research (Hess, 2004; Hess, : 1239). In this section, the authors are supposed to compare the results with literature, interpret results, express their opinions and stance. Meanwhile, they need to convince readers of the significance and contribution of their research (Golmohammadi et al., 2014: 607).

Nevertheless, few investigations looked into the analysis of explicit subjective modality metaphor in academic discourse. Thus, the current study attempts to investigate the interpersonal meaning of explicit subjective modality metaphors in discussion section of linguistics RAs.

## 2 II.

### 3 Theoretical Framework a) Halliday's Modality System

Halliday (1985) classifies modality into mainly two types: modalization and modulation. If the clause is an "information" clause, which is a proposition congruently realized as indicative, this means either possibility or usuality; if the clause is a "goods and services" clause, which is proposal realized by imperative, it means either "is wanted to," relevant to a command, or "wants to," relevant to an offer; namely, either obligation or inclination (Figure 1). ??Halliday, 1985:335) In addition, orientation is the basic distinction that determines how each type of modality will be realized ??Halliday, 1994: 355). Namely, it is distinction between subjective and objective modality, and between the explicit and implicit variants (Figure 2). ??Halliday, 1985: 358) According to ??alliday (1985), explicit subjective and objective patterns are metaphorical realization of modality and the examples are given in Table 1.

#### 4 Modulation: inclination

Explicit subjective modality metaphor includes probability in modalization and obligation in modulation. In these two situations, the clauses with modality represent a mental process to emphasize the subjectivity of the speaker, such as "I believe," "I reckon," "I want," "I desire" etc. Moreover, modified relational clauses that express a cognitive state or emotion can also clearly represent subjective orientation, which is also metaphorical ??Chang, 2001). Such as:

(a) I'm sure Mary'll know. (Probability) (b) I'm willing for him to go. (Inclination) ??alliday (1994:347) believed that in the two types of modalities, usuality and inclination, the speaker cannot express explicit subjective modal meanings.

assuming that it can be expressed by the first verb phrase of a verb phrase complex, such as:

(c) I tend to wake up early in the morning. = I usually wake up early in the morning. (Usuality)

#### 5 b) Realization of Explicit Subjective Modality Metaphor

According to ??alliday's (1994) definition and classification of modality metaphor as well as the complements of the realization of modality metaphor by ??hang (2001) and ??uang (2000), the realization methods of objective modality metaphor include two realization methods: (a) projection clauses like [I/we V that] and [I/we be ADJ that] and (b) verb phrase complex. In separate, projecting clauses, some verbs and adjectives are given in Table 2 and Table 3 by Fan (2001) and Hu (2020). And the realization methods are summarized in Table 4. ??006) specific study on the structure of linguistics RAs, the current research selected the discussion sections of 60RAs from Applied Linguistics (2016-2020), with a total of 95,665 words.

The second step was to identify modality metaphors in the corpus. Based on the definition elaborated by Halliday and the supplements for modality metaphor identification raised by other scholars, lists with search terms for explicit subjective were input in AntConc. Meanwhile, the selected modality metaphors were manually checked, sorted and classified.

Then, SPSS was utilized to conduct a quantitative analysis to reveal distribution features of explicit subjective modality metaphor in discussion section. Also, modality metaphors with different semantic features were compared with the assistance of Chi-square.

Finally, focusing on the original context, the interpersonal meaning of modality metaphors was analyzed to explain the reasons for different distributions.

IV.

## 6 Results and Discussion

### 7 a) Distribution features of explicit subjective modality metaphor

It can be noted in Table 5 that in the current corpus, there are totally 48 different varieties of explicit subjective modality metaphors, with a total frequency of 171. Epistemic modality accounts for 84.8% of the total modality metaphors, much more than other types. Among these 145 epistemic modality metaphors, the pattern "we/I find/found that" is most popularly used explicit subjective modality metaphor (23 occurrences), followed by the pattern "we believe that" (14 occurrences) and "we know that" (10 occurrences). As for boulomaic modality metaphors, there are totally 19, accounting for 11.1%. Evaluative modality metaphors such as "we question that," "we can appreciate that" and evidential one including "we felt that" only take up a small fraction as a whole, 3.5% and 0.5% respectively. The first reason for the high proportion of epistemic modality metaphor is its role in accentuating scientificity and objectivity of RAs.

The pursuit of scientificity and objectivity is an essential feature of scientific discourse (Markkanen & Schroder 1997: 12). The epistemic modality demonstrates the author's certainty or uncertainty upon the hypotheses ??Li, 2001). Compared with other subjective modality metaphors, epistemic ones emphasize that the views are simply derived from individual behavior instead of the main body in society, which in turn proves that the authors are pursuing the scientificity and objectivity of academic discourse. I this case, a range of mental verbs such

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as "believe," "think" or "argue" can be classified as belief evidentials (Hu, 1994), which are not fixed facts, but subjective judgments that are difficult to verify. Moreover, the author chooses a subjective projection to show the argument and takes on full responsibility for the certainty and modality of the information (Yang, 2015).

## 8 Example 1: We can conclude that only the English native speakers treat novel and regular metonymy differently, with the latter highly conventionalized, while the other native groups do not (for more details see Slabakova et al. 2013) (From RA 3).

Example 2: We would have seen a larger and wider effect of MTI had we been able to include more participants in our sample who had not attended any MTI. For example, we think (that) this would have led to a statistically significant effect of MTI on the Somali vocabulary measures, at least for lexical depth (From RA 37).

In Example 1, the form "we can conclude that," with an explicit subjective projection, gives a condensed summary for the results of the current study. It indicates the core finding as well as the certainty of the research. In Example 2, the author makes a reasonable and subjective prediction by using "we think that" pattern, which displays his subjectivity. The author claims that if more participants can be included in the sample, a more profound effect of Mother Tongue Instruction will be figured out. Thus, he or she surmises MTI will definitely exert an influence on Somali vocabulary measures. Undoubtedly, it is a prediction instead of the fact seen from the research. However, the author is willing to shoulder the responsibility for this claim, arguing that MTI will influence the development of biliteracy since he or she has conducted scientific research in this field.

ii. According with the politeness principle (1) Raising different or supplementary viewpoints in a conciliatory way In addition, sometimes it is common for authors to propose a view that is opposite or complementary to previous research. In this case, authors tend to express their opinions without damaging others' face (Hu, 2020) as is shown in Example 3.

Example 3: We might thus have to recognize that some aspects of language knowledge are perhaps not as atomistic or discrete as 'desirable' for this purpose. In other words, we may wish to consider developing tests of lexicogrammar rather than 'pure' syntax or vocabulary tests, or integrating aspects of syntactic or phraseological properties of vocabulary into vocabulary tests (From RA 24).

In Example 3, the author is explicit involved in the discourse by means of an explicit subjective projection "we might thus have to recognize that." It can be inferred that 'pure' syntax, vocabulary tests, integrated syntactic or phraseological properties of vocabulary were previously and consistently considered into vocabulary tests by researchers. However, the writer here points out that developing tests of lexicogrammar should also be taken into account. Compared with previous cognition, the writer's viewpoint is a complement.

(2) Strengthening negotiation between writers and readers Subjectively projected propositions take first person pronouns i.e. I or we as the projector while objective ones resort to the non-interactant "it" or "there." Hyland (2008) emphasizes the interaction between the writer and the reader. It is often the case that writers and readers share common knowledge but writers need to adjust negotiation space by shortening distance between readers and themselves.

Example 4: Earlier we pointed out that the concern about vocabulary tests based on word family knowledge is that they may overestimate the lexical knowledge that learners can apply to reading. Based on the evidence from the two studies above and our text analysis by MorphoLex, we contend that this concern is exaggerated and further that there is little reason to reconsider the large amount of useful and influential research that is based on the word family as the unit of counting (From RA 60). (Subjective) In Example 4, readers show concern for vocabulary tests based on word family knowledge. Nevertheless, the author evaluates this concern that it is exaggerated. By employing the pattern "we contend that," the author can weaken the tension of this preposition, as a result of which, creating a negotiable atmosphere. In Example 10, the use of objective modality metaphor "it is possible that" shows that researchers are prone to air their views in a negotiable way, so as to enhance the academic inclusiveness and negotiation space of the research.

(3) Expressing the author's deliberativeness "Pure opinion" is a pivotal component of the content that is subjectively projected (Aijmer, 1997; ?imon-Vandenberg, 2000). When the projection, no matter objective or subjective, is "pure opinion," it will exude the author's deliberative attitude toward his point of view.

Example 5: At the same time, we want to clarify that we cannot assume causality based on these correlations, and we also have not controlled for the impact of, for example, participants' general cognitive ability as a possibly mediating factor in the results (From RA 37).

As is shown in Example 5, an opinion that is we cannot assume causality based on these correlations is proposed by the author as an object clause followed by "we want to clarify that." Superficially, the subjective projection "we want to clarify that" conveys author's purpose and intention. More importantly, it emphasizes the author's opinion in a deliberative way. In Example 12, with the objective projection, the writer doubts the reliability of complicated formulae in accessing essays, further demonstrating writer's deliberateness.

V.

9 Conclusion

The result of quantitative analysis clarifies that subjective modality metaphors are commonly utilized by writers in discussion section in Linguistics RAs. Among the annotated modality metaphors, Epistemic modality metaphors are most frequently used (84.8%), followed by boulomaic, evaluative and evidential modality metaphors.

The distinctive distribution difference can be explained from two perspectives. First, compared with other modality metaphors, epistemic modality metaphors contribute to pursuing scientificity and objectivity of academic discourse. More importantly, the interpersonal meaning of epistemic modality metaphor satisfies the politeness principle by raising different or supplementary viewpoints in a conciliatory way, strengthening negotiation between writers and readers as well as expressing the author’s deliberativeness.

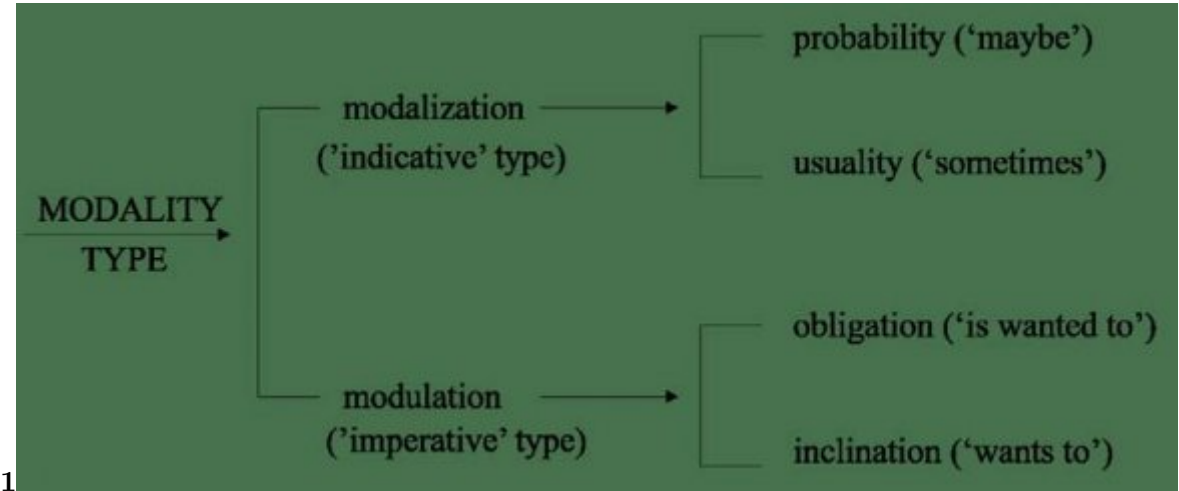


Figure 1: Figure 1 :

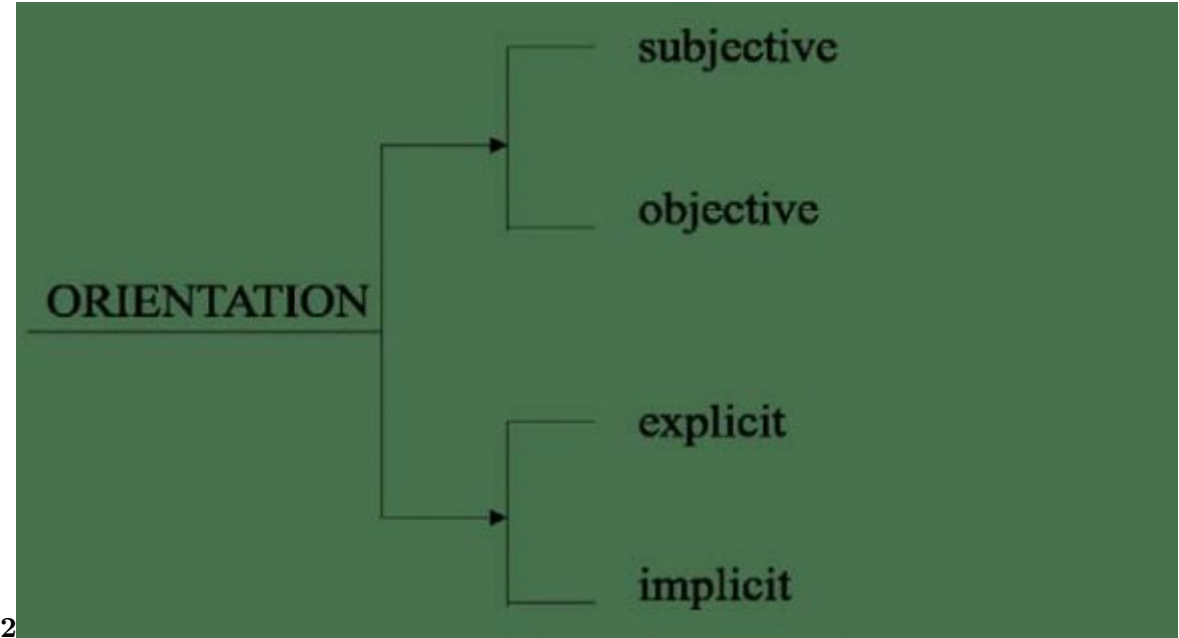


Figure 2: Figure 2 :

1

ORIENTATION TYPE	Explicit Subjective (Modality Metaphor)	Explicit Objective (Modality Metaphor)
Modalization: probability	I think Mary knows.	It's likely that Mary knows.
Modalization: usuality		It's usual for Fred to sit quite quiet.
Modulation: obligation	I want John to go.	It's expected that John goes.

Figure 3: Table 1 : Metaphorical Realization of Modality(Halliday 1994: 358)

2

Semantic Feature	Subclass	Members
	Learn	learn, read allow, anticipate
Epistemic	Conjecture	

[Note: remember, believe, think, feel, posit, suppose, suspect Estimate count, estimate, guess, judge Discover ascertain, deduce, determine, discover, find, guess, rationalize, realize, hear, learn, read Comprehend grasp, understand Deduce conclude, deduce, gather, infer, prove, reason, rationalize Evaluative Admire admire, adore, affirm, appreciate, believe, dread, fancy, fear, lament, prefer, reaffirm, regret, resent, respect, stand, support, tolerate, treasure, trust, worship Accept accept, understand Care care, mind, wonder, worry Boulomaic Correspond agree, disagree, decide Wish dream, expect, hope, imagine, intend, mean, plan, propose, wish, desire, refuse, decline Allow allow Evidential See perceive, smell, see, taste, detect, feel, notice, sense]

Figure 4: Table 2 :

### 3

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Nonetheless, Huang (2000) put forward a different view,

Semantic Epistemic	Feature	Subclass	Certainty	Perception	Expectation	Un/happiness	sad, tragic, distressing	certain
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Evaluative		In/security				surprising, funny, encouraging		
		Impact				interesting, im- pressive, excit- ing		
		Quality				neat, nice, won- derful		
		Composition				appropriate, proper		

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Figure 5: Table 3 :

		Semantic Feature	Explicit	Subjective				
			[I/We V that]					
	Modal	Epistemic	[I/We be ADJ]					
		Evidential	our opinion					
			I/We tend to					
			[I/We V that]					
	Modal	Evaluative	[I/We be ADJ]					
		Boulo- maic	our responsibility					
			our	desire/determination				
III.	Methodology							
a) Research Questions								
Concentrating on distribution and functions, this study is designed to answer the following questions:								
(1) In linguistics RAs, what is the overall distribution of explicit subjective modality metaphors in discussion section?								
(2) What are the interpersonal functions of explicit objective modality metaphors in discussion section of academic discourse?								
b) Research Procedures								
Firstly, based on Yang's (								

Figure 6: Table 4 :

Realization	Method	Semantic Feature	Examples in Corpus	Frequency Percentage	
		Epistemic	we/I find/found that (23) we believe that (14) we know that (10) ...	145	84.8%
Projection Clauses		Boulomaic	we want to V that (6) we hope that (5) we expect that (3) ...	19	11.1%
		Evaluative	we question that (1) we can appreciate that (1) we were surprised that (1) ...	6	3.5%
		Evidential	we felt that (1)	1	0.5%
Total			171		100%

Figure 7: Table 5 :





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167 [??? and ?????????????????] , ??? , ????????????????? .

168 [??? and ?????????ä½? ??????] , ??? , ?????????ä½? ????? .

169 [??? and ?????????????????] , ??? , ????????????????? .

170 [??ç?"?] , ??? ??ç?"? .

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