

An Investigation of Epistemic Modality in Literary Texts

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Abstract

Language is employed for not only conveying factual information but also expressing one's attitudes and opinions about the truth of the proposition contained in an utterance. Here the authors has made their attempts to realize how epistemic modality, which indicates addressese's (non)-commitment to the truth of the proposition, is textualized in literary works. The results from the data analysis indicates that modality is lexico-grammaticalized in literary narratives in a variety of modes of which the epistemic modals are of high frequency. Furthermore, these modals construe four types of ideology; that is to say, possibility, probability, inference and belief, in, from among which the epistemic possibility is utilized with high frequency.

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1. Introduction

Perhaps interpersonal function of language is one of the most fascinating and complicated subjects in a linguistic study. Modality, reflecting the writer's opinion and idea about a proposition, lexicogrammatically realizes the interpersonal meaning of an utterance. Simpson (1993) and many other scholars such as Lyons (1968), Coates (1983), Quirk, et al (1985), Halliday (1985) and Palmer (1986) focus on the modality while discussing the interpersonal meaning of an utterance. Any utterance may indicate one of the three meanings (using Lyon's terms, (1977b); factivity, contra-factivity and non-factivity. From Halliday's (1985) point of view, the first two of Lyon's categories correspond to polarity - asserting or rejecting a fact - and the last one corresponds to modality - the writer's judgment about a fact. Two main modalities can be recognized; that is, epistemic and root modality. The latter rests with the hearer/reader whereas the former rests with the writer and refers to a linguistic mood that indicates how much certainty or commitment the writer has for his proposition. Both root and epistemic modalities can be textualized through different lexical verbs, adverbs, adjectives, nouns and modal auxiliaries. Among these different lexico-grammatical realizations, modal auxiliaries are employed more frequently in expressing the writer or writer's attitude toward a proposition.

In this study, the primary focus is on the lexico-grammaticalization of epistemic modality via modal auxiliaries. As there is no one-to-one correspondence between form and function; indeed a modal auxiliary may have both epistemic and root meanings. Therefore, in different social contexts, the writer employs a particular modal auxiliary to express obligation, permission, etc, which are categorized under root modality, and in another situation the same modal auxiliary may be used to refer to possibility, probability, and so forth, which fall under epistemic modality.

It is noted that any writer has an ideology or philosophy behind the different types of modal auxiliary he uses. In other words, the modal auxiliaries representing the epistemic modality imply different ideologies which construe the writer's judgment about the events or phenomena in a particular context.

2. Review of Literature

Lyons (1968) defines "mood" - interrogative, declarative and imperative - in relation to an unmarked class of sentences which express simple statement of facts unqualified with respect to the attitude of the writer to what he is saying. He considers it essentially as a grammatical category, while he defines "modality" in connection with language function, which is regarded as a semantic category. According to Simpson (1993), modality refers to a writer's attitude toward, or opinion about the truth of a proposition expressed by a sentence. It also extends to the attitude toward the situation or event described by a sentence. Therefore, modality is viewed as a major exponent of the interpersonal function of language. Drawing upon the above account, it can be said that language is not merely used for conveying factual information. In addition, a writer may wish to indicate the degree of certainty with which he makes a statement, or try to influence others in various ways, exercise authority or signal submission to somebody else's authority, give permission or ask for permission, make people do things or stop them from doing things. As such, modality covers all semantic categories underlying all these uses of language.

Types of Modality

Simpson (1993) identifies four modalities;

Deontic modality is the modal system of "duty" as it concerns itself with writer's attitude to the degree of obligation attaching to the performance of certain actions. In the examples below the deontic modal auxiliaries realize a continuum of commitment from permission (a) through obligation (b) to requirement (c).

- a) *You may leave.*
- b) *You should leave.*
- c) *You must leave.*

Deontic expressions may also combine adjectives and participles in "BE ... THAT" and "BE ... To" constructions representing a comparable continuum of commitment. See the following examples;

You are permitted to leave.
It is possible for you to leave.
You are obliged to leave.

Obviously such system is highly associated with the strategies of social interaction, especially with tactics of persuasion and politeness.

Boulomaic modality is lexico-grammaticalized in English through expressions of "desire" which is closely associated with deontic modality. Modal lexical verbs, indicating the wishes and desires of the writer, play important role in this system, as the following instances make the point clear:

I hope that you will leave.
I wish you'd leave.
I regret that you're leaving.

In this system, too, the "BE ... To" or "BE THAT" constructions can carry boulomaic commitment, so can modal adverbs;

It is hoped that you will leave.
It is good that you're leaving.
Hopefully, you're leaving.

Perception modality refers to the fact that the degree of commitment to the truth of a proposition is predicted on some reference to human perception, normally visual perception. For instance,

It is obvious that you are right.

You are clearly right.
It is apparent that you are right.

Epistemic modality refers to the judgments about possibility, probability etc. in the sense that something is or is not the case. This modality distinguishes modalized and unmodalized (in Lyon's (1977b) terms, categorical and non-categorical) assertions by signaling that writer's commitment to the truth of the proposition in the utterance is qualified. Epistemic modality falls between factive and contra-factive utterances. Factive utterance proposed by Kiparsky (1970) is that which commits the writer to the truth of the proposition. As such, any predicator that behaves like "know" can be said to have the property of factivity. For example;

- a) *I know that Tehran is the capital of Iran.*
- b) *It is amazing that they survived.*

Anyone who says the above utterances is committed to the truth of the proposition expressed respectively by the following statements;

- a) *Tehran is the capital of Iran.*
- b) *They survived.*

A contra-factive utterance, on the other hand, commits the writer not to the truth, but to the falsity of the proposition by its constituent clauses, and indicates his commitment to the falsity of the proposition expressed. The obvious instances of such utterances are wishes and so-called unreal conditionals (with past-time reference). For example,

I wish he had been to Tehran.
If he had been to Tehran, he would have visited the Azadi Tower.

Finally a non-factive utterance commits the writer to neither the truth nor the falsity of a proposition. Such an utterance is discussed under the notion of epistemic modality. For instance,

I think/believe that Tehran is the capital of Iran.
He may have gone to Tehran.
It is possible that he went to Qom.

Anybody who makes uses of "think" or "believe" , "may" and "possible" in the above examples commits himself to neither the truth nor the falsity of the statements.

Epistemic Modals

Epistemic modal refers to the cases where a modal auxiliary is used to express the degree of the writer's conviction or belief in the truth of the proposition expressed.

Must

"Must" indicates that writer draws a conclusion on the basis of available evidence. For example, we can imagine a situation where two people are engaged in a conversation inside a house. A noise is heard from the outside. If the speaker believes that the noise is caused by the postman, he may express this belief more or less strongly by the following sentence,

- a) *That must be the postman.*

We can paraphrase the sentence a) as "I conclude that it is the postman". The use of *must* indicates that the writer has not observed the postman, but has drawn a conclusion on the basis of available evidence. As such, the epistemic meaning of "must" implies that the writer judges the proposition to be necessarily true, or at least to have a high likelihood of being true. This type of meaning of *must* can be more clarified by the following example;

- b) *The Smiths must have a lot of money.*

Having observed that the Smith is living in a large house, traveling in an expensive car, etc, the writer draws the conclusion that they must be well-off.

May/Might

The epistemic meaning of *may* involves a lower degree of belief in the truth of a proposition. This meaning of *may* is sometimes termed epistemic possibility because it denotes the possibility of a given proposition being or becoming true. Drawing upon the situation mentioned above, the other speaker may be more skeptical and answer as follows;

a) *It may be the postman.*

This sentence can be paraphrased as "it is possible that it is the postman". Therefore, in paraphrasing the epistemic meaning of *may*, we use "it is possible followed by a that clause". More examples with their paraphrases come below;

b) *You may be right.*

Which is paraphrased as "it is possible that you are right".

c) *We may never succeed.*

Which is paraphrased as "it is possible that we'll never succeed".

The epistemic meaning of "might" can be used as an alternative to *may*, which indicates possibility, and is often preferred to *may* as a modal of epistemic possibility. To put other way, *might* merely indicates a little less certainty about the possibility. See the examples below;

a) *You think someone might be watching us.*

b) *Look, now you might be going in August*

The above instances can be paraphrased respectively as:

a) *You think that it is possible that someone will be watching us.*

b) *Look, now it is possible that you will be going in August.*

Can/Could

The epistemic meaning of *can/could* is typically found in question and in negated statements. With regard to the paraphrase of *can/could* there is a subtle superficial difference with that of *may/might*, that is to say, *may/might* is paraphrased as "it is possible" which is followed by a that clause whereas *can/could* is paraphrased as "it is possible" followed by an infinitive clause. This is just a structural difference which ends in a semantic difference. Namely, the use of *may/might* expresses actual possibility while *can/could* expresses the potential possibility. The following examples may clarify the point;

a) *A complete description can be found in the reference books.*

b) *Agreement between management and unions may be reached tomorrow.*

These two sentences can be paraphrased as follows:

a) It is possible for a complete description to be found in the reference books at any time (=statement of present fact).

b) It is possible that agreement between management and unions will be reached (= statement of future possibility).

However, is noted that in questions and negated statements, *may* in the sense of epistemic possibility is normally replaced by *can*. See the difference below;

c) *She may not be serious.*

d) *She cannot be serious.*

The sentence c) is paraphrased as "it is possible that she is not serious", whereas d) is paraphrased as "it is not possible that she is serious".

Therefore, these two sentences have quite different meanings because of the way the negative particle *not* operates. With *may/might*, *not* goes with the main verb while with *can/could*, *not* goes with the modal auxiliary. As such,

e) *They may/might not reach agreement tomorrow.*

and

f) *They can/could not reach agreement tomorrow*

will be paraphrased respectively as:

e) *It is possible that they will not reach agreement.*

f) *It is not possible that they will reach agreement.*

We can conclude that in the use of *may/might not*, it is the proposition that is negated not the possibility, in the case of *can/could not*, it is the possibility that is negated not the proposition.

Should/ought to

Should and *ought to* are often used to indicate what is regarded as probable or what may reasonably be expected. Therefore, it can be said that the epistemic meaning of *should/ought to* is prediction. The epistemic should can be illustrated by the following situation;

A person waiting at a bus stop, having consulted her watch and the bus timetable may say;

a) *The bus should be here in five minutes.*

Here *should* expresses the speaker's prediction about the bus arrival.

A subtle difference between *should* and *ought to* is that in making use of *ought to*, the speaker makes a more guarded prediction. Drawing upon the above situation, we may face a more seasoned passenger who makes a more guarded prediction and says;

b) *The bus ought to be here in five minutes.*

This sentence means something like "provided that his watch is right and that the bus runs on schedule", it will be here in five minutes. But by and large, *ought to* would be the equivalence of *should* whether in the sentence (b) or in other situations.

Will/Would

The epistemic meaning of *will/would* indicates a high degree of confidence in the truth of the proposition. That is to say, they are used to express what we believe or guess to be true. Although they lack the assertive force of *must* and *can't*, they do not necessarily indicate any less certainty on the part of the writer. Considering the first situation mentioned earlier, if the speaker says;

a) *That will be the postman.*

It can be paraphrased as "it is (very) likely that it is the postman".

3. Methodology

Modal auxiliaries possess two different meanings; epistemic or root meaning. It is claimed that either of these two may be used at a higher rate than the other in different contexts. In other words, it is the register and genre which determine their use in different situations, and since in literary narratives we observe the influence of the writer's idea and ideology (see Fairclough 1992, 1995) on the propositions he makes, we hypothesize that in such texts epistemic modals will be dominant because these modals rest with the writer. In addition, we hypothesize that different sorts of epistemic modals are employed in different genres for expressing the epistemic modality. For instance, in the literary narratives in which the certainty of the propositions may not be committed by the writer, some special epistemic modals that imply the possibility like *can*, *may* and *might* are of high use and frequency. In order to extend this investigation further, this research attempts to examine the lexico-grammaticalization of the epistemic modality through the epistemic modals.

Being of a qualitative research design, this study attempted to explore five short stories which the researchers have randomly selected from Lawrence, O. Henry, Plunkett, Steinbeck and Joyce as the data

corpus, and describe the lexico-grammaticalization of the modality on the basis of Palmer's (1986) Model, where modality falls into epistemic modality and root modality. Accordingly, the modal auxiliaries employed in the corpus under investigation were coded and classified into epistemic modality if they were associated with the writer's opinion or judgement about the propositions and into enroot modality if there were concerned with the reader's authority.

Through descriptive statistics, the lexico-grammaticalized modals employed in the corpus were described in terms of frequency and percentage. Furthermore, attempts were made to calculate the frequency and percentage of the ideologies; that is, probability, possibility, inference and belief, which were employed in the literary works under question.

4. Data Analysis

To explore how the epistemic modalities are interpersonally motivated, i.e, the way they are capable of manifesting interpersonal function, some pieces of literary narratives - short stories –were selected at random and analyzed statistically in the framework of the classification discussed earlier. The literary texts analysed here include five short stories compiled by Rezai (1992) and Ouhaeinia (1994). They are respectively "The Rocking-Horse Winner" written by D.H. Lawrence, "Mammon and the Artber" written by O.Henry, "Weep for our Pride" by James Plunkett, "The Chrystanthemunis" written by John Steinbeck, and "Arbay" by James Joyce.

To investigate the significance of epistemic modality representing the interpersonal function through different modal auxiliaries, we tried to examine the selected short stories to answer the following questions;

1. Are root and epistemic modals employed equally in the examined short stories? If not, what percentage does each allocate to itself?
2. Are epistemic modals used equally in literary narratives?
3. What is the writer's ideology behind the epistemic modals?
4. Which of the different ideologies expressed by the writer using epistemic modals is of high frequency?

The analysis of the data corpus indicated that two types of meaning are expressed by the modal auxiliaries; epistemic: and root meaning.

According to Lyons (1977), epistemic modals are subjective, the essence of which is to express the writer's reservation about giving an unqualified "I-say-so" to the factuality of the proposition. Subjectively modalized statements are statements of opinion, or inference rather than statements of fact, whereas root modals are objective, that is they contain an unqualified "I-say-so" component. The writer is committed by the utterance of an objectively modalized utterance to the factuality of the information that he is giving to the addressee.

The results of the descriptive analysis demonstrated that totally 226 modal auxiliaries were employed by five authors whose works had been used as the data corpus, from among which 117 were concerned with root modality, and 109 were concerned with epistemic modality. As shown in Table (1), there is an overlapping of meaning in the use of modal auxiliaries. To exemplify, *can* has been used 43 times of which 20 times it were associated with the epistemic meaning and 23 times with the root meaning. The implication is that root and epistemic modalities are not used at an equal rate in literary texts, and root modals are of high frequency.

Table 1: Descriptive Statistics for Root and Epistemic Modals

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Modal Auxiliary	Root Modal	Epistemic Modal
Might	8	21
Can	23	20
May	4	19
Could	18	17
Should	6	11
Must	17	10
Can't	7	4
Will	22	6
Couldn't	4	2
Would	6	-
Have to	2	-
Total	117	109
Total Number of Modal Auxiliaries	226	

Moreover, Table (2) illustrates the percentage of the root modality and epistemic modality in the corpus used for data collection.

Table 2: Percentage of Root and Epistemic Modals

Modal Auxiliary	Root Modal	Percentage of Epistemic Modal
Might	3.53%	9.29%
Can	10.17%	8.85%
May	1.76%	8.40%
Could	7.96%	7.52%
Should	2.65%	4.86%
Must	7.52%	4.42%
Can't	3.09%	1.77%
Will	9.73%	2.65%
Couldn't	1.77%	88%
Would	2.65%	-
Have to	0.88%	-
Total	51.76%	48.23%

In an attempt to answer whether the epistemic modals are employed equally and with the same frequency or not, we noticed that from among these modals, the epistemic modal *might* is of the highest and *couldn't* of the lowest use. The latter implies high degree of confidence while the former indicates possibility in the truth of proposition. In Table (2), the frequency of the epistemic modals found in the literary texts under investigation has been arranged from the highest to the lowest. It is seen that they are not distributed and employed at the same rate, and depending on the genre of texts their frequency changes. Regarding this research, the most frequent epistemic meaning of the modals is allocated to *possibility* which has the implication of non-commitment toward the propositions expressed by the writer.

In answer to the question "what is the ideology behind the epistemic modals?", we can see that in the utterances in which the epistemic modals are used the writer expresses his non-commitment to the proposition. In other words, the writer takes rather the middle path in expressing the proposition - i.e. not factivity nor contra-factivity but in-between. To put it other way, the propositions are interpreted in terms of the writer's attitude and opinion toward the events. In the short stories under investigation, four main ideologies lie behind the epistemic modals.

- a) Inference
- b) Possibility

- c) Probability
- d) Belief

The first ideology of the writer is inference, which is lexico-grammaticalized by such epistemic modals as *must*, *can't* and *couldn't*. Through such modals, when epistemic meaning is intended, the writer transmits his own inference made on the basis of his own knowledge or on the basis of evidence available in the environment. The second ideology is that of possibility, which is lexico-grammaticalized by means of such modals as *may*, *might*, *can* and *could*. As the epistemic meaning of such modals indicates, by using these modals the writer wants to say that he does not have sufficient knowledge, neither personal nor environmental, to talk frankly about the events. As such, resorting to such modals, he expresses his lack of commitment to the proposition. By the epistemic modals of *should* and *ought to*, the writer expresses the ideology of probability of the propositions within the utterances. Via such modals, the writer wants to express what can probably be expected from the utterance. That is to say, by using such epistemic modals he wants to express the idea about which not only he but also others have the same prediction. Finally, the fourth ideology behind epistemic modals is "belief or "high degree of confidence" in the proposition which is textualized by modals like *will* and *would*. These two epistemic modals indicate that the writer is certain and sure about the proposition, and that somewhat he is committed to the truth of the utterance; namely, he believes that the proposition is true in his opinion.

Table (3), we can find the number and percentage of the four ideologies backing up the epistemic modals. It indicates that the frequency and percentage of the possibility ideology about the utterance expressed by the epistemic modals is at the highest level while that of the belief ideology is at the lowest level.

Table 3: Number and Percentage of Ideologies by Epistemic Modals

Ideology expressed by epistemic modals	Frequency	Percentage
Possibility	77	34.07%
Inference	16	7.08%
Probability	11	4.86%
Belief	6	2.65%

Therefore, it can be concluded that the writer's ideology of employing the epistemic modals in the literary narratives is mostly of the possibility kind, i.e. the writer is not certain and sure of the consequences of the utterances and does not want to make himself committed to what he utters.

4. Conclusion

It becomes clear that one employs language not only to speak about the fact but also to express his opinions, ideas and ideologies about the events. In this regard, we can make use of modal auxiliaries to express our certainty or uncertainty about the proposition we make. But as it was shown one particular modal may have more than one meaning; that is to say, one form of the modal auxiliary can convey epistemic meaning in one situation and root meaning in another context. Therefore, it can be said that the meanings of modal auxiliary are context-dependent. The frequency and percentage of the epistemic modals differ from one genre to another, and are lower than root modals in the literary narratives. In fact, in a particular text a specific type of the epistemic modal which conveying a certain ideology is of high

use. For instance, in the literary narratives, the writer makes great use of the epistemic modality that implies the writer's ideology of uncertainty about the proposition.

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