คำแสดงทัศนะภาวะในตัวบทพระพุทธศาสนาที่เขียนเป็นภาษาอังกฤษ

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บทคัดย่อ

การศึกษานี้ศึกษาเกี่ยวกับคำแสดงทัศนะภาวะในตัวบทพระพุทธศาสนาที่เขียนเป็นภาษาอังกฤษ การศึกษาคำแสดงทัศนะภาวะก่อนหน้านี้ให้ความสำคัญกับภาษาวิชาการ ดังนั้นการศึกษานี้จึงสำรวจคำแสดงทัศนะภาวะในตัวบทพระพุทธศาสนาคลังข้อมูลการศึกษาวิจัยเก็บรวบรวมมาจาก ตำราพระพุทธศาสนาที่เขียนเป็นภาษาอังกฤษเป็นจำนวนทั้งสิ้น 150,000 คำซึ่งประกอบด้วย 181 ตัวอย่าง การวิเคราะห์ข้อมูลคำในตัวบทพระพุทธศาสนาวิเคราะห์จากคำปรากฏคำแสดงทัศนะภาวะ เช่น *may might* และ *must* ซึ่งคำแสดงทัศนะภาวะ ถูกจำแนกออกเป็นสามระดับ อันได้แก่ ระดับที่แน่นอน ระดับที่มีความน่าจะเป็นไปได้ปานกลาง และ ระดับที่อาจจะเป็นไปได้ การวิเคราะห์ข้อมูลผ่านการตรวจสอบความแม่นยำจากผู้เชี่ยวชาญทางด้านภาษาอังกฤษเป็นจำนวนสามท่าน ผลการศึกษาแสดงให้เห็นว่าคำแสดงทัศนะภาวะในตัวบทพระพุทธศาสนาในระดับที่อาจจะเป็นไปได้ปรากฏเป็นจำนวนสูงสุดที่ 72.37 เปอร์เซ็นต์ การใช้ในความถี่ที่สูงของคำแสดงทัศนะภาวะในตัวบทพระพุทธศาสนาในระดับที่อาจจะเป็นไปได้สามารถอธิบายได้โดยการคาดคะเนถึงสถานการณ์ในอนาคต และ เหตุการณ์ที่ยังไม่สามารถพิสูจน์ได้ทางวิทยาศาสตร์ การศึกษานี้จะเป็นประโยชน์ต่อผู้สนใจในหลักคำสอนทางพระพุทธศาสนาผู้เรียนภาษาอังกฤษเป็นภาษาต่างประเทศและผู้เรียนภาษาอังกฤษเป็นภาษาที่สอง

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Epistemic Modality in English Buddhist Texts

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Abstract

This study investigates the use of epistemic modality in English Buddhist texts. While previous studies in the field of epistemic modality focused on the study of epistemic modality markers in academic texts, this study contributes to the view of English Buddhists texts. The amount of 150,000 words of English Buddhist texts comprises 181 tokens. The epistemic modality markers such as *may*, *might,* and *must* are classified into three categories; including certainty, probability, and possibility. The data validation in this study was checked by three English instructors. The results show that the use of epistemic modality with the degree of possibility appears the highest in English Buddhist texts at 72.37 percent. The discussion of epistemic modality in this study reveals Buddhist doctrine in regard to unproven situations, estimation, and future prediction. It is hoped that the results in this study will be beneficial for those who are interested in the Buddhist doctrine as well as those learners of English as a Foreign Language and learners of English as a Second Language.

Keywords: Buddhist doctrine, English Buddhist texts, epistemic modality

Introduction

In the present day, there are almost 500 million Buddhist people around the world. However, some Buddhist people have a mixture between the belief of Buddhism and superstition. It can be argued that Buddhism does not ask us to believe in superstition (O'Brien, 2006). Based upon the author's experience of being Buddhist, to support this by an example of Thai people, the lifestyle of Thai people relies significantly upon religion. The lifestyle of Thai people appears to be where people seek spiritual ghosts, things beyond nature and the outlook of life. This is seen as the integration of supernatural and philosophical respects in Buddhist beliefs among Thai people. Accordingly, this research will help people in society to avoid the confusion between Buddhist teaching and superstition.

Some Thai Buddhists would go to a monk to check their future health status. However, there is no right or wrong and they are personal and sensible beliefs. This is not regulated by the laws of science and obligation. According to Servaes (2000), one of the Thai value systems is religio-physical orientation, which refers to karma and superstition. It is pointed out that the reading of horoscopes is not about higher of lower education (Servaes, 2000).

Buddhist texts are common reading and everyday reading as they are probably read due to relaxation and uncertainty avoidance. It is unavoidable to say that we are likely to fear unknown and uncertain situations. Hofstede's (2009) model of cultural dimensions exhibits the dimensions of uncertainty avoidance of which overall 120 nations were scaled in his work. Asian countries, having Buddhist belief, show higher degrees of uncertainty. For example, China scored at 40, whereas the uncertainty avoidance in Thailand scored 64. Chaney and Martin (2005) stressed that the uncertainty reduction associates with an explanation of what happened in the past simultaneously with future prediction concerning own and other behaviors, beliefs and attitudes. Therefore, people have a tendency to create change instead of

reacting to the event where they may modify certain situations that they believe can be influenced by their actions. To hear something good about their own future seems to be positive intrinsic motivation. Thus, people who read Buddhist texts are often advised what they should do or what they should not via the language of modality markers (i.e., certainty, probability and possibility). Therefore, this study is to examine the use of epistemic modality, what disciples should or should not do according to this doctrince. With this investigation, the results of the study will be beneficial to those who are interested in Buddhist doctrince.

Literature Review

This section provides the theoretical concepts of epistemic modality. The previous studies of epistemic modalities are divided into two camps. The majority of them focused on a formal register, referring to academic texts, whereas a few studies examined informal register, such as newspapers.

Definition of Epistemic Modality

Epistemic modality is a common type of modality to express one's opinions. It is defined as the writers' information and their assessment toward information (Nordlinger & Traugott, 1997). The writers make assumptions of possibility via their confidence based upon information they have. Nevertheless, epistemic modality is not concerned with *socio-physical sphere*, referring to obligation or measurement. They express their assessment via degrees of certainty (Arrese, 2009; Marin-Arrese, 2008; Sanders & Spooren, 1997; Swan, 2016; Traugott, 2010), such as (1).

(1)

(a) You **must** go and see Anna. I think it is necessary.

(b) She **should** be here.

(Swan, 2016, p. 68)

In (1), the epistemic modality markers *must* and *should* represent different degrees of certainty (Swan, 2016). To illustrate, in (1a) the speaker's expression of opinion is that one has got to go. In contrast, (1b) is a choice of probability, one should be here. As pointed out, epistemic modality denotes degrees of certainty (Swan, 2016). The range of degree of certainty in previous studies are ranged between two and five degrees, depending on their text varieties (Arrese, 2009; Marin-Arrese; 2008; Swan, 2016). The degree of certainty is also termed differently. While some studied prefer the names of *certainty*, *necessity*, *probability*, *possibility* and *impossibility*, other studies classify epistemic modality into *high certainty*, *medium certainty* and *low certainty*, as in (2).

(2)

(a) That **must** be wrong. (High certainty)

(b) That **will** be wrong. (Medium certainty)

The epistemic modality marker *must* in (2a) is confidently concluded after something has been observed (Arrese, 2009). *Will* in (2b) is possibly concluded or reasonably explained (Marin-Arrese, 2008). The classifications of each category will be clearly explained again in the method.

In terms of socio-physical sphere, epistemic modality is not relevant to social obligation, law and measurability, such as (3).

(3)

(a) Jan **must** stay in my office. (Epistemic; opinion)

(b) Jan **must** not smoke in the cinema. (Deontic; obligation)

(c) Jan **can** speak six languages. (Dynamic; ability)

The modality markers in (3) shows different categories. (3a) is interpreted as epistemic modality as it is only the speaker's assessment toward a certain situation. On the contrary, the modality *must* in (3b) is considered *deontic*, referring to obligation or legitimacy. The modality *can* in (3c) is called dynamic, referring to

one's ability. Although there are several kinds of modality markers in English, this study only focuses on epistemic modality, as in (3a).

Functions of Epistemic Modality

In addition to the degree of epistemic modality markers as mentioned above, epistemic modality markers also have various functions, such as self-correction, prediction, politeness, negotiation and propaganda, as in (4).

(4)

(a) I think Jim **may** be a doctor, oh no he is afraid (Self-correction)
of blood, he **would** not be a doctor.

(b) It **would** be better to follow this plan. (Prediction)

(c) It **may** be true in some cases, (Politeness/ negotiation)
but this up-to-date information **would** help argue that [...]

(d) I am compelled to do this because I **would** not want the (Manipulation)
bank to push my clients funds into their treasury as unclaimed funds.

Both personal and interpersonal functions of epistemic modality are presented above. The speaker does self-correction via different levels of epistemic modality when she could retrieve her information. The epistemic modality *would* in (4b) could increase the confidence between speakers because of positive prediction. In (4c), although the speaker makes an argument, he/she maintains politeness via face saving of what has been claimed previously. In (4d), the epistemic modality marker *would* denotes manipulation as the writers seem to force the client indirectly.

Previous Studies of Epistemic Modality

This section reviews the use of epistemic modality in previous studies. The majority of epistemic modality studies in previous research selected the text varieties in a formal register, such as academic genres (i.e., argumentative essays,

psychological journals, medical texts, linguistic journals, biomedical texts and dissertations) (Gabrielatos & McEnery, 2005; Martín, 2001; McEnery & Kifle, 2002; Panocová, 2008; Pasto 2012; Piqué, Posteguillo & Andreu-Besó, 2001; Vold, 2006; Vukovic, 2014). On the other hand, only a few studies have focused on epistemic modality in a semi-formal register, such as newspapers, fraud email and TED talks, refering to conferences (Bonyadi, 2011; Chiluwa & Anurudu, 2020; Hacquard & Wellwood, 2012; Nhat & Minh, 2019; Piqué, Posteguillo & Andreu-Besó, 2001; Vukovic, 2014). Different text varieties are likely to employ different epistemic modality markers.

One of the commonly selected texts is academic. The epistemic modality marker *may* is productively used in this text variety, such as psychological and linguistic journals as in (5a), biochemical as in (5b), medical text as in (5c) and health science an in (5d).

(5)

(a) Phonological awareness is thought to be related to children's success in learning to read. However, morphological awareness **may** offer a more comprehensive measure of linguistic sensitivity.

(Martín, 2001, p. 205)

(b) The convergence of this endocrinological research suggests that the measurement of cortisol, DHEAS and melatonin **may** be important to understand the mechanisms underlying the physiological effects of these psychosocial interventions.

(Panocová, 2008, p. 205)

(c) Differences in treatment context **may** have contributed to divergent outcome between the two studies, but it is also possible that our larger study simply provides a better estimate of acupuncture's "true" treatment effect compared with the 2 control conditions.

(Vold, 2006, p. 81)

(d) What's more, the immune system, in killing off infected cells, **may** play a significant role in its own destruction.

(Piqué, Posteguillo & Andreu-Besó, 2001, p. 216)

The use of epistemic modality *may* in these texts is explained as a result of politeness and humble attitude (Vold, 2006). Nevertheless, it is also frequent for the academic medical and health scientific texts to use the epistemic modality *can* and *could* in order to show preciseness (Vold, 2006). However, the epistemic modality *must* in the latter text variety are rarely found (Piqué, Posteguillo & Andreu-Besó, 2001).

Aside from the frequent possible degree in academic texts, the degrees of probability are commonly applied in the informal register, such as newspapers as in *The New York Times* (Bonyadi, 2011) and *The Guardian* (Piqué, Posteguillo & Andreu-Besó, 2001), as in (6a) fraud email in (6b) and TED Talk (Nhat & Minh, 2019).

(6)

(a) In a democratic Zimbabwe, or in Africa that insisted on respect for democratic elections, Mr. Tsvangirai **would** be president and Mr. Mugabe **would** be gone.

(Bonyadi, 2011, p. 5)

(b) Again, If I don't hear from you, **I will** look for another person.

(Chiluwa & Anurudu, 2020, p. 25)

The degree of probability, possibility and necessity in newspapers are 51.46 percent, 23.97 percent and 24.56 percent (Bonyadi, 2011). The use of *will* is found to be commonly used in fraud email whereby over 60 percent is found in its use. It is usually with the personal pronoun *I*. The epistemic modality *will* and *would* gain the higher frequency and are used commonly in this text variety (Bonyadi, 2011; Piqué, Posteguillo & Andreu-Besó, 2001). Likewise, the high degree of certainty, such as *must*, is commonly used in news reports. In addition, Vukovic (2014) studied

the strong degree of epistemic modality in parliamentary talk. The use of epistemic modality, such as *must* is not frequent, but the speakers are likely to use other syntactic categories, such as noun phases, as in (7b).

(7)

(a) And I think we **must** recognize that in humanitarian terms [...] I think we **have to** be realistic.

(b) There may be argument about the amounts involved but the **fact** that you have to reduce the level of public spending is there [...]

(Vukovic, 2014, pp. 46-48)

Instead of using the high certainty of epistemic modality, such as *must* and *have to* as in (7a), the syntactic category of noun phrase, such as *fact* is far more productive in parliamentary talk (Vukovic, 2014).

Buddhism and Buddhist Doctrine

This study contributes to the view of epistemic modality in Buddhist texts. Buddhism is a common practice in East Asian countries (Prebish & Keown, 2010). There are several core beliefs in Buddhist doctrine. It comprises of a spiritual renewal commonly known as *rebirth, karma* and *samsara* (Prebish & Keown, 2010). Rebirth will perpetually repeat as it is the cycle of conditioned ways of living. Rebirth is dependent on karma. The process of rebirth and karma is considered as Samsara. Karma in this life will have an influence on the rebirth in the next life. People who practice Buddhism are usually taught that good behavior and contributing actions in the present day will have a positive consequence in the future.

There are certain conditions for those who practice Buddhism to understand. They are ignorance, consciousness, birth, old age, death, craving and senses.

Meditation is regarded as a fundamental practice of Buddhist teaching. It is believed that all human being can develop their mind through meditation. This could

lead them to become a perfect human being due to their own action and perseverance. The karma is not given by God, but it is the result of their own action. People practice their mind via meditation in order to escape from suffering and refrain themselves from being reborn again as the Buddha was able to escape from this suffering cycle with his own perseverance. (Prebish & Keown, 2010).

Through reviewing previous studies, a formal register such as academic texts are likely to use a lower degree of epistemic modality. However, the semi and informal registers appear to have a higher degree of epistemic modality. The current study contributes to the field of epistemic modality by examining English Buddhist texts via answering the following research questions?

1. What is the frequency of different degrees of epistemic modality markers in English Buddhist texts?

2. What are the functions of epistemic modality markers in English Buddhist texts?

Method

As mentioned in the literature review, this study focuses on the different degrees and functions of epistemic modality in English Buddhist texts. The data collection and the data analysis are explained in this section.

Epistemic Modality

It is possible for one's opinions and evaluation that can be expressed in various syntactic categories, such as verb phrases, adverbial phrases and modal phrases as in (8) (McEnery & Kifle, 2002; Nordlinger & Traugott, 1997; Oh, 2007). However, previous research found that epistemic modality is the most frequent category as in Table 1 (Hu & Li, 2015; Oh, 2007)

(8)

(a) I **think** Kate is single (Verb phrase)

(b) I **find** this chocolate bitter. (Verb phrase)

(c) **Basically,** this is not a special meal. (Adverbial phrase)

(d) You **may/must** leave now. (Modal phrase)

Table 1: Percentage of Epistemic Expressions as Compared with Other Different Syntactic Categories (Hu & Li, 2015; Oh, 2007)

Categories	Oh (2007)		Hu & Li, (2015)	
	Raw Frequency	Percentage	Raw frequency	percentage
Epistemic Modality	**2,229**	**30**	**1,269**	**38.46**
Verb	2,141	20	1,049	31.79
Adverb	1,514	20	812	24.60
Noun	1,235	17	2	0.06
Adjective	344	5	168	5.09
Total	**7,463**	**100**	**3,300**	**100**

Table 1 reveals that epistemic modality is the most common category (Hu & Li, 2015; Oh, 2007). With this productive support of epistemic modality, the use of epistemic modality is, therefore, investigated in English Buddhist texts.

Despite there being a variety of epistemic modalities, Piqué, Posteguillo and Andreu-Besó (2001) statistically reported, based on their study of scientific and newspapers genres, that the use of epistemic modality is far more prolific to represent the speakers, opinions and attitudes, as in Table 2.

Table 2: Percentage of Comparisons between Epistemic and Deontic Modality (Piqué, Posteguillo & Andreu-Besó, 2001)

Categories	Percentage	
	Formal register (i.e., Scientific research)	Informal register (i.e., Newspapers)
Epistemic modality	97.11	91.2
Deontic Modality	2.97	8.8

Table 2 reveals different text varieties in both formal and informal register in order to point out the use of epistemic modality more substantially than deontic modality. In scientific research, the percentages of epistemic and deontic modality are 97.11 percent and 2.97 percent, respectively. In newspapers, the percentages of epistemic and deontic modality are 91.2 percent and 8.8 percent, respectively. With this empirical evidence, it is on the right track to investigate the epistemic modality for observing people's opinions. Therefore, previous research shows that the researcher will have a higher chance of obtaining the information of epistemic modality markers in formal texts as in English Buddhist texts for the sake of his study.

Data Collection

The data collection in this study comes from two English Buddhist texts, which is written by those scholars in the field of Buddhism One of them is *Buddhism for Dummies*, which is Buddhist doctrine and ways of practicing it (Landaw, Bodian & Buhnemann, 2019) The other is *Introducing Buddhism* (Prebish & Keown, 2010). The two books are selected based upon the criteria of the best sellers (amazon.com). Also, these authors are qualified concerning their education and knowledge in the field of Buddhism. Premish is the Chair in Religious Studies at Utah State University. Keown is a Professor of Buddhist Ethics at the University of London. The second text

is *Buddhism for Dummies* from the publication of *John Wiley & Sons*. This text is written by Landaw, Bodian and Bühnemann (2019). Landaw is a Buddhist scholar. Bodian is an author of meditation. Bühnemann is a Professor of language and culture at University of Wisconsin-Madison. The amount of 150,000 words of English Buddhist texts contains 181 tokens.

Data Analysis

This section explains how the data of epistemic modality in English Buddhist texts is interpreted. To begin with, the data in the two English Buddhist texts were collected manually by the researcher line by line as shown in an excerpt below.

(9)

What is the relationship between the body and the soul? If the soul is a permanent and unchanging entity somehow trapped within the phenomenal world in spite of its transcendent, then what is the historical process by which this ontological fall took place? Or if the soul participates in change, then what is the psychological process by which it enters into an epistemological relation with an unchanging reality? **We must [MUST; CERTAINTY] account for personal change and the possibility of spiritual progress on the one hand and for personal continuity and the persistence of memory on the other.**

(Prebish & Keown, 2010, p. 9)

Secondly, once the data of epistemic modality were found in the context, they were highlighted and taken to be counted for their frequency based upon their degree of epistemic modality as presented in Table 4 where examples are given in Table 5.

Classification of the Degree of Strength

The investigation of epistemic modality in this study follows McEnery and Kifle (2002), which is considered as a reliable framework applied in numerous

previous research papers. The high degree indicates *certainty*. The medium degree is *probability*. The low degree is *possibility* (McEnery & Kifle, 2002)

Table 4: Degree of Epistemic Modality Markers (McEnery & Kifle, 2002)

Certainty	Probability	Possibility
must, have to	*will, would, should, ought, shall*	*may, might, can, could*

Table 5 provides three different degrees of certainty. The most confident assessment is called *certainty*. In previous studies, it consists of *must* and *have to*. The probable degree of assessment contains the epistemic modality markers *will, would, should, ought* and *shall*. The possible degree in one's judgement is made up of *may, might, can* and *could*.

Table 5: Types of Epistemic Modality Markers in English Buddhist Texts (10)

Types	Examples
Possibility	(a) [...] the Buddha **may** have been suffering from a variety of ailments. (Prebish & Keown, 2010, p. 37)
Probability	(b) The karmic choices we make today **will** come to maturation or bear fruit tomorrow. (Prebish & Keown, 2010, p. 19)
Certainty	(c) We **must** account for personal change and the possibility of spiritual progress on the one hand and for personal continuity and the persistence of memory on the other (Prebish & Keown, 2010, p. 14)

Thirdly, the epistemic modality makers were classified into *possibility*, *probability* and *certainty*. Different epistemic modality markers are used in these different degrees. In the degree of *possibility*, different epistemic modality markers are used as in *may*, *might*, and *can* as in (10a). The epistemic modality markers *will* and *would* as in (10b) is available in the degrees of probability. Apart from that, the degrees of certainty as in (10c) are used with the epistemic modality of *must*, *and have to*. The result and discussion of epistemic modality in this study are presented in the following section.

Results and Discussion

This section provides the results and discussion of epistemic modality markers as used in English Buddhist texts.

Table 6: Epistemic Modality Markers in English Buddhist Texts

Degree	Modality markers	Frequency	Percentage	
Certainty	***must***	2	1.10%	1.10%
Probability	***should***	3	1.66%	26.51%
	will	25	13.81%	
	would	20	11.04%	
Possibility	***may***	42	23.20%	72.37%
	might	5	2.76%	
	can	76	41.99%	
	could	8	4.42%	
	Total	181	100%	100%

Table 5 presents the percentage of epistemic modality markers in English Buddhist texts. The percentage of the epistemic modality markers indicating possibility appears the highest at 72.37 percent, while the percentage of the modality markers indicating certainty appear the lowest only at 1.10 percent. With this result of the study, it is shown that the two Buddhist text provide similar patterns of Buddhist doctrine. Despite having different authors presented as follows.

The highest percentage of the epistemic modality makers in the degree of possibility is that the writers address something either unproven or really difficult to be proven, as in (11).

(11)

(a) After this life, you **may** be reborn in a realm filled with extreme suffering.

(b) When you're born as a human again, you **may** have a short life with sickness and other difficulty.

(c) It **might** seem strange to Western ears to hear that rebirth in heaven is not the ultimate goal.

(d) Animals **can** only hope for an existence relatively free from pain and to be born in a better condition in the next life.

(e) Most Buddhist believe that merit **can** be transferred from one person to another.

(f) You **can** purify your negative karma no matter how heavy it is.

Although people often hear about the anecdote of rebirth several times in their life, no one even the author of these textbooks could confirm about the perpetuation of rebirth. Also, there is no reliable evidence to support the rebirth of human beings (Landaw, Bodian & Buhnemann, 2019). This could be a reason to support the use of the epistemic modality markers with the degree of possibility when addressing rebirth.

The frequency of the epistemic modality markers in the degree of possibility could be supported by estimation. With estimation, it could become difficult to know whether or not the results of practice will be productive, as in (12).

(12)

(a) Only your practice of the teaching **can** support you at the time of your death.

(b) Buddhist teaching **can** reduce your self-doubt and fuel your perseverance.

(c) The Buddhist teaching about mindfulness, wisdom, and compassion **can** offer effective methods for achieving lasting happiness and peace of mind.

(d) Buddhist meditation **can** make you an even better follower.

As shown in (12), the result of practicing Buddhist teaching and meditation cannot be guaranteed individually. It is likely to be dependent of an individual person. This could be a reason why the writers provide as estimation via the degree of possibility to play safe in terms of different individual results. Another interpretation is prediction. Again, the results from prediction could be different individually, as in (13).

(13)

(a) At the beginning of practice, you **may** still be afraid to die.

(b) At an intermediate level of practice, you **may** not be happy about dying, but you have no fear, convinced that you **can** handle death and whatever comes next.

In (13a), it is predicted that those who are the beginners of the practice of meditation may be afraid of dying. However, when they advance to the higher level, they may not be afraid of death.

Another use of epistemic modality in the level of possibility is to use metaphor as (14).

(14) If the subject of Buddhism is relatively new for you, you **may** believe that your mind is like a clean slate.

In (14), the practitioner's mind is compared with *a clean slate*. This comparison may or may not be true, so the writers protect themselves via using a lower degree of epistemic modality markers.

While the degree of possibility highlights something unproven, estimation, prediction and metaphor, the epistemic modality with the degree of probability indicates probable effects.

(15)

(a) The karmic choices we make today **will** come to maturation or bear fruit tomorrow.

(b) Sometimes, karma **will** bear fruit in the same lifetime.

(c) You **will** die whether or not you've done anything worthwhile in this life.

(d) A meritorious action is one generating good karma that **would** come to fruition either now or sometimes in the future.

In regard to the probable effect, it shows that our good or bad actions that we did will affect our life.

Finally, if we keep practicing Buddhist doctrine and practicing meditation, we will finally reach achievement as shown in the epistemic modality marker with the degree of certainty. *You must actually follow path that leads to this achievement.*

The following paragraph provides the discussion of the results of the study in regard to the high frequency of the epistemic modality with the degree of possibility as in avoiding problems, creating hope and presenting the characteristics of humility.

Avoiding Problems

Using the epistemic modality in the level of possibility can help avoid problems if the writers make a note of something unproven (Hyland, 2005). As a Buddhist, rebirth remains a controversial issue for people in society. Most people tend to make merit via different patterns as they believe that they might be born again in a better life, which could be either richer or with different higher status. When the writers could not guarantee the results of making merit with being born in a better life condition, they tend to use epistemic modality makers in a lower degree, such as *may*, *might* and *can* so as to avoid being attacked by readers.

Creating Hope

The use of epistemic modality markers in the level of possibility could post the positive impact of creating hope. The writers tend to play with the human's feeling that they know that people cannot live without hope. As indicated by Bishop and Willis (2014), people need hope to live. With the statement that we can die without suffering is most people's hope that this may happen to them after the hard practice of meditation Bishop and Willis (2014). With this hope, people can try hard enough to do this difficult task to accomplish it before they die.

Presenting the Charateristics of Humility

Epistemic modality markers in the level of possibility present the characteristics of humility in Buddhism. Humility is one of the obvious characteristics of Buddhism (Owen, Johnson & Mitchell, 2013). Humble people can get successful and become accomplished easier as in *you can achieve true transformation of your mind*.

Functions of Epistemic Modality in English Buddhist Texts

As mentioned in the literature review, there are several functions for the use epistemic modality as in prediction, politeness, negotiation and propaganda. The function of future prediction is mostly used in English Buddhist texts. The function of prediction is used to indicate that an event is likely to happen in the future, such as (16).

(16)

(a) Sometimes, karma **will** bear fruit in the same lifetime.

(b) They **will** be reborn after death.

(c) You have no guarantee that you'**ll** live to be that age.

(d) [...] When you're born as a human again, you **may** have a short life with sickness and other difficulty.

(e) At the beginning of practice, you **may** still afraid to die.

As in (16), epistemic modality markers in English Buddhist texts are used to predict future events. In (16a), it is predicted that the karma is likely to show its result in the same lifetime. In (16b), it is a prediction that human beings are likely to be reborn after death. In (16c), it is unpredictable that one will live until an age they expect. In (16d), it is predicted that if one is born as a human again, they may be faced with a short life and sickness. In (16e), it is predicted that the beginners who practice meditation may be scared of death.

Another function of epistemic modality in English Buddhist texts is advice as in (17).

(17)

(a) The explanation that's best for one person **may** not be helpful for another person.

(b) At first, connecting with these qualities **may** be difficult, but don't worry.

(c) Meditation **can** also be considered as a method for getting to know your own mind.

(d) [...] if you want to be a Buddhist, you **could** study and practice.

In (17a), it is advised that one explanation is not always generalizable for all. In (17b), it is advised that you should not be worried when facing a difficult task. In (17c), in order to know oneself better, meditation is advised as a way of practice. In (17d), it is suggested that the study and practice of Buddhism is a good way to become a Buddhist.

Comparison of English Buddhist Texts with Other Text Varieties

This section compares the use of epistemic modality in English Buddhist texts with previous studies. The comparison includes a formal register academic genres (Gabrielatos & McEnery, 2005; Martín, 2001; McEnery & Kifle, 2002; Panocová, 2008; Pasto 2012; Piqué, Posteguillo & Andreu-Besó, 2001; Vold, 2006; Vukovic, 2014) and a semi-formal register, such as newspapers, fraud email and TED talks (Bonyadi, 2011; Chiluwa & Anurudu, 2020; Hacquard & Wellwood, 2012; Nhat & Minh, 2019; Piqué, Posteguillo & Andreu-Besó, 2001; Vukovic, 2014). The use of epistemic modality in English Buddhist texts shows a similar result with medical texts as in (18) as medical treatment cannot guarantee 100 percent outcomes.

(18) Differences in treatment context **may** have contributed to divergent outcome between the two studies, but it is also possible that our larger study simply provides a better estimate of acupuncture's "true" treatment effect compared with the 2 control conditions.

(Vold, 2006, p. 81)

It is similar in that the use of epistemic modality with the degree of possibility in medical texts and English Buddhist texts are preferred. Medical texts cannot guarantee about treatments. Likewise, there is no guarantee about another life after death.

Although English Buddhist texts can be classified as semi-formal texts, the way they use epistemic modality is totally different from other semi-formal texts, such as newspapers (Bonyadi, 2011; Piqué, Posteguillo & Andreu-Besó, 2001) fraud email and Technology, Entertainment and Design (TED) Talk (Nhat & Minh, 2019) as these texts are likely to use the epistemic modality with the degree of probability. Accordingly, this study shows that there is no relationship between the stronger degree of epistemic modality with formal academic texts. The use of epistemic modality actually depends on the types of text varieties.

Conclusion

This study has investigated the epistemic modality in English Buddhist texts in order to answer the research questions as follows:

1. What is the frequency of different degrees of epistemic modality markers in English Buddhist texts?

2. What are the functions of epistemic modality markers in English Buddhist texts?

The frequency of epistemic modality markers that occur the most in this study is the degree of possibility at 72.37 percent followed by the degree of probability at 26.51 percent and the degree of certainty at only 1.10 percent.

With the higher degree of possibility, the function of epistemic modality emphasized something unproven scientifically (i.e., *Animals can only hope for an existence relatively free from pain and to be born in a better condition in the next life*). The function of possible degree of epistemic modality was found to be estimation and prediction (i.e., *At the beginning of practices, you may still be afraid to die*). Since the belief and practice in Buddhism do not have a guarantee in terms of results, the writer tends to use the lighter degree of epistemic modality so as to avoid being attacked subsequently. The functions that are also commonly used in English Buddhist texts

are prediction (i.e., *they **will** be reborn after death*) and advice (i.e., *the explanation that's best for one person may not be helpful for another person*). The results of this study are only complied from two English Buddhists texts, which are written by those people in the field of Buddhism. The data was not directly brought from *Tripitaka*. Also generalizing the results to other text varieties may not be applicable to the optimal level. It is recommended for future research in the field to select other text varieties so as to be able to compare with the results of this study.

Pedagogical Implications

As mentioned in the introductory section, this will help to improve the performance of English language speakers in order to use language effectively and acceptably. To reach this goal, EFL and ESL need to be faced with numerous challenges to acquire grammar and how to apply them in use. Some people mentions that explicit learning is beneficial as rules of language are clearly taught explicitly, where other agrees with implicit learning of grammar as it can take place in everyday life without depending upon English language teachers and grammar books (Rahman & Rashid, 2017). With different approached of grammatical learning, there are different viewpoints between explicit and implicit learning of grammar. Explicit learning of grammar has several advantages in regard to clear explanation and illustrations, active learning, and conscious acquisition (Ling, 2015). It is suitable for learners for beginning level. However, the weaknesses of learning grammar in this way are that it requires learners' high attention and patience as learning grammar in this way may be boring. In addition, applying the use of grammar in different context could be difficult for language users. On the other hand, the advantages of implicit learning of grammar are that the learners can chooses their own text of interest to read themselves everywhere and anytime. The suitability of text can be selected according to the learners' background knowledge and their age (Ziegler, 2017). In addition,

grammatical rule can be understood via given context. When the learners choose their text of interest to read, this aloe then to apply the use of grammar effectively to the right context. They could learn form, meaning and use at the same time. Implicit learning of grammar do not only encourage ESL and EFL learners to learn how to use grammar in context, but it also encourage learners to be moral and ethical people in the society.

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