

The Expressions of Epistemic Modality in English and Vietnamese: A Contrastive on “thấy” and “nghĩ” in Vietnamese and Mental Verbs in English

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Abstract

Epistemic modality is described as the speaker's judgment, assessing the degree of the factual proposition, or the speaker's confidence or non-confidence in the truth value of the proposition. The paper focuses on the expression of “thấy”, “nghĩ” predicates in Vietnamese and compares with mental verbs in English. To achieve the research objectives, the paper uses descriptive, statistical and comparative methods to clarify modality in general and epistemic modality in particular. The paper initially contributes to clarifying the definition, category, and identification of epistemic modality in terms of grammar and vocabulary. Next, the paper points out the similarities and differences in the expression of epistemic modality in English and Vietnamese. The results show that the nature of vocabulary and syntax basically exists value of factuality and non-factuality. The most important feature of epistemic modality is subjectivity and objectivity. The speaker “**I/T**” clearly expresses or implies commitment for what is said. Understanding and applying modality in general and epistemic modality in particular will help learners acquire language and culture better in the process of communication and translation.

Keywords: modality, epistemic modality, mental state verbs, thấy, nghĩ

1. Introduction

Modality in English and Vietnamese has been studied by many scholars in both logic and linguistics. Specifically, in logic, we can see it in Rescher (1986), Kripke (1977), Heim (1982), Waterlow (1982), Dan D.N. (1987), Kratzer (2012) and in linguistics, we can look at Halliday (1970), Lyons (1977), Perkins (1983), Nuyts (2001, 2006), Palmer (1986, 1990), Hao X.C. (2006), etc. Although these schools have a common consensus on the meaning of necessity and possibility when analyzing modality, the differences between them are: if the logic school studies modality in natural world, the linguistics studies modality in the personal world. In general, the problem of modality is extremely complicated but interesting when expressing the proposition in the utterance. For example, Perkins (1983) argues that doing research on modality is very similar to trying to move in an overcrowded room without treading on anyone's else feet, and Hao X.C. (2006) stated that any utterance contains at least one modus.

Modality plays an important role in expressing the meaning of the utterance. If modality is absent, the propositional content will lose its vitality because modality often expresses many different meanings of the speaker about the propositional value. Therefore, in the language, too many different categories of modality are existed in the same utterance such as, logical modality, dynamic modality, epistemic modality, deontic modality, root modality, speaker-oriented modality, propositional-oriented modality, alethic modality, subjective modality, objective modality, etc. The means of expressing modality are often expressed through tenses, aspects, moods, lexical words, intonation, and the speaker's attitudes.

The reason for the existence of many different modal categories is: (1) the nature of the modality in language is a very big topic, so each linguist often chooses his or her own approach on semantics or syntax. Therefore, they do not completely agree with each other on the natural meaning of modality in subjectivity and objectivity; (2) the boundary between different types of modality is very blurred, difficult to separate, so different in contexts, communication cultures, social classes, levels of knowledge, communication styles, views, communication purposes, etc. the same utterance can infer many different modal meanings; (3) Modality has also long been considered a sub-category, studied very carefully and even introduced new concepts, so the unification of modality is even more difficult.

As mentioned above, modality is a vast issue, so the paper only focuses on epistemic modality in particular rather than on modality in general. Epistemic modality is described as the speaker's judgment, assessing the degree of the factual proposition, or the speaker's confidence or non-confidence in the truth value of the proposition. The fact also shows that modal meanings are appeared and intertwined in the same utterance, so in the process of acquiring English language and teaching English as a second language, we find that Vietnamese students feel difficult to distinguish and properly recognize values of modality. Therefore, it is very important to understand and properly apply modality in general and epistemic modality in particular when expressing propositions in order to contribute to teaching or learning modality in English and Vietnamese learning, and contribute to better translation between two languages.

2. Literature Review

2.1 The Concept of Modality

According to logic school, modality is related to concepts like necessity, possibility, and impossibility. These concepts are based on relationships between judgments and factuality. In general, logic modality is built on three values: true, false, and possible true or false. The difference with the modality in linguistics is that when describing the logic modality, researchers often use symbols, mathematical formulas to interpret the laws of the natural world. Because of its objectivity focused, the limitation of logic modality is not pay attention to subjective factors like epistemology, intention, belief of the speaker in proposition and context. Logic modality assumes that an utterance only makes sense when the proposition can be assessed true or false value.

- (1) (a) *A bachelor is an unmarried man.*
 (b) *No one **can** move faster than light.*
 (c) *If a man is in Rhodes, he is not in Athens.*
 (d) *John **must** go to the beach.*
 (e) *Fritz **must** be taken to the vet.*
- (2) (a) *This fragile glass **might** break if it falls down.*
 (b) *John **may** go to the beach.*
 (c) *John **is allowed** to go to the beach.*

Utterances (1a-e) illustrate different kinds of necessity. Utterance (1a) is an example of logical alethic necessity, the proposition is necessarily true because of the denotation relationship between "a bachelor" and "an unmarried man". Utterance (1b) stated by Hughes and Creswell (1968) is necessarily true of what we know about the regularity of physics "the speed of light is the fastest". Utterance (1c) is necessarily true about what we know of the geographical location in the world in which we live "Rhodes and Athens" are two different places (Heim, 1982). Furthermore, the necessity in utterances (1b-c) is a knowledge-based factor, so it is usually labeled epistemic logic, and logical perception is often analyzed through the laws of entailment. With utterance (1d), there are two ways of looking at it: the one is to follow epistemic necessity, what we know about "John" we necessarily say that "John **must** go to the beach". The other is to follow deontic necessity, "John is forced to go to the beach". This ambiguity is caused by the modal verb "must". Also, Heim (1982) considered utterance (1e) to be a deontic necessity. Different from utterances in (1), utterances in (2) are seen as having different kinds of factual possibilities. Utterance (2a) is an expression of possible epistemic modality, utterance (2c) expresses possible deontic modality. Meanwhile, utterance (2b) both expresses possible epistemic and deontic modality.

From the above illustrations, logicians see that [+necessity] and [+possibility] are modal operators impacting on the proposition. They stated that a proposition of [+necessity] is analyzed "true" in all possible worlds, and [+possibility] is analyzed "true" only in some possible worlds. However, the term "possible world" is a very complex, ontological difficulties and extremely inappropriate, far away from the actual world, our world (Galia (1997:117-121). According to Kiefer (1994), he said that modality is the relativization of the validity of sentence meanings to a set of possible worlds. Talk about possible worlds can thus be construed as talk about the ways in which people could conceive the world to be different.

After observing the concepts of modality in linguistics in general, the results show that the linguistic school has nearly same perception of modality. They thought that modality is the expression of the speaker's attitude and opinion about the proposition. Specifically, we review some views on modality follows: Jespersen (1940) in his book "A modern English grammar on historical principles" stated that modality is the expressions of the speaker's attitude towards the proposition. Halliday (1970) stated that modality is the speaker's judgment about what he said. In addition, he also distinguished between modality and other expressions such as types of criticism that express the status of the speaker. With epistemic modality, the speaker's status is emphasized by assessing the relationship between the propositional content and its real world.

Palmer (1986) said that modality is defined as semantic information concerning the speaker's attitude or opinion about what is said. Renaat (2011) defined there is reference to actualization of a situation in a world that is not represented as the factual world. Although there are slightly different arguments about the concepts of modality, almost all of these researchers believe that modality is an expression of the speaker's attitude, opinion about the proposition, and modality needs to consider the status of the speaker about what he said.

Vietnamese researchers also agree with the linguists studying English about the concept of modality mentioned above, for example, Hao X.C. (2006) analyzed the means of expressing modality through presupposition and implication of some Vietnamese modal verbs from the perspective of functional grammar, modality related to theme and rhyme theories. In addition, he also made the following opinions of modality as follows:

- + The speaker evaluates the factuality of what is said in the utterance.
- + The degree of commitment to the possibility or necessity of the proposition.
- + The speaker's assessment of the proposition through his attitude.
- + Show the relationship between utterance content, utterance situation and other factors.

In general, although there are many different views on the concept of modality, researchers all agree that modality in linguistics is semantics, pragmatics and the speaker's thoughts about the value of the proposition.

2.2 The Concept of Epistemic Modality in Logic and Linguistics

Ayer (1956) considered epistemic modality in the relationship between knowledge and belief. He argued that when something is considered true belief, it constitutes knowledge. He defined knowledge as the necessary and sufficient conditions for knowing that something is said first to be true, then it is true, and finally it is recognized true. To prove this, he gives an expression "X knows it is Y" which implies that "X believes it is Y". In response, Gettier (1963) offered the following rebuttal situation: Whether X mistook a dog for a sheep when he looked at the field (remember that the dog had been disguised by the farmer as a sheep and assume that X hadn't seen it before). Then, indeed, X believed that there was a sheep in the field. This statement is correct and logical in form, but it is necessary to reconsider the nature of this sheep because the sheep has been intended by the farmer before. Moravcsik (1976) when studying Aristotle's modality, said that epistemic modality is based on two elements [+necessity] and [+possibility]. He made three main types of judgments to prove the truth of propositions.

- + Necessary judgment: states that what is said is true to the object in all possible worlds.
- + Possible judgment: considers the existence or non-existence of what is said to the object in all possible worlds.
- + Realistic judgment: considers the existence or non-existence of what is said to the object as an objective and necessary reality.

In view of the cognitive linguistics, Nuyts (2001) defined epistemic modality like an evaluation of hypothetical cases about the proposition. It is considered *is/has been /will be* in the possible world. According to Traugott (1989), epistemic modality expresses the speaker's subjective belief state or attitude towards the proposition. Givón (1982) argued that epistemic modality is based on evidentiality and inference. He said that the evidentiality and inference enabled the speaker to determine the factuality of the proposition in the utterance as realis, irrealis or non-realis based on presuppositions that are conventionally true, false, or in the degree of possibility of right and wrong.

2.3 Categories of Modality and Epistemic Modality

Wright (1951) divided modality into four main types: alethic, epistemic, deontic, dynamic. Alethic modality concerns on logic necessity like "John is a bachelor, so he is unmarried." Epistemic modality is the speaker's knowledge or belief. Deontic modality is obligation someone to do something. Dynamic modality is the speaker's ability or volition. Rescher (1968) divided modality into eight types: alethic, epistemic, deontic, causal, boulomaic, temporal, evaluative, conditional. Lyons (1977) divided modality into three groups of opposite meanings: necessity vs. possibility, epistemic vs. deontic, subjectivity vs. objectivity. Perkins (1983) divided modality into four types: epistemic modality in terms of rational laws, deontic modality in terms of social laws, dynamic modality in terms of national laws, temporal modality in terms of time. Palmer (1986) distinguishes between realis, irrealis and modal systems as two grammatical ways of expressing the concept of modality. The mood system is described by a binary distinction between indicative and subjunctive or realis and irrealis. With the modal system, he divided it into two main categories: propositional modality and event modality. The propositional modality refers to the speaker's attitude to the truth value or actual nature of the proposition itself, while event modality refers to events that are not realized, or don't take place in a possible world. Finally, he went on dividing modality into four basic categories: epistemic, evidential, deontic, and dynamic.

Table 1. Categories of modality of Palmer (1986)

Propositional modality		Event modality	
Epistemic	Evidential	Deontic	Dynamic
speculative	Reported	obligated	abilitive
deductive	auditory	commissive	volitive
assumptive	sensory	directive	

Also, Willett (1998) divided evidentiality into two parts: direct and indirect. They have a close relationship with epistemic modality expressions.

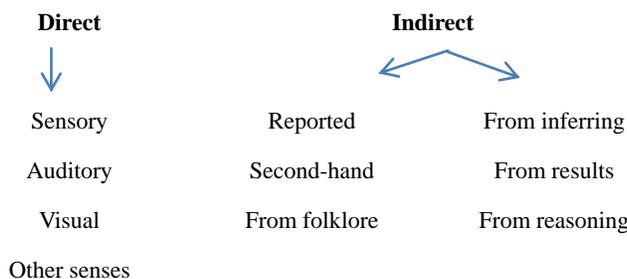


Figure 1. Categories of evidentiality of Willett (1998)

From the categories of modality of these researchers, we realize that modality has a very wide semantic range, so when each researcher is standing in a different view, he can give different judgments and categories of modality. However, they still do not seem to be able to cover all modality although each author may have attempted to concretize or generalize about modality. For example, the most widely agreed upon types are epistemic, deontic, dynamic, alethic, etc. In summary, this category shows that modality multi-dimensionally impacts on the proposition due to the purpose and expression culture of the speaker.

According to Palmer (1986), epistemic modality is expressed not only in terms of possibility and necessity, but also expressed through the degree of commitment by evidential such as hearsay, reports or senses. Givón (1982), epistemic modality is analyzed through evidentiality and inference about the value of the factuality, non-factuality of the proposition. Nuyts (2001), epistemic modality is categorized through evaluation of propositional hypotheses that will occur, is occurring, or has occurred in the possible world. It can be seen that these are three typical epistemic modality categorized in linguistics. To evaluate epistemic modality, these authors focus on tenses, aspects, on evidentiality such as hearsay, reporting and senses, and on logical inference.

2.4 Conceptual Framework

In order to decipher the speaker/writer's thoughts about what is said and help the hearer realize the level of factuality about the propositional value, epistemic modality is considered a practical tool, often used in the language that the speaker uses to identify the proposition. It can be stated that modality in general and epistemic modality in particular in linguistics are a super-interpersonal functional system aimed at establishing mutual understanding between the speaker/writer and the hearer/reader about the value of the proposition.

Definition of epistemic modality: Epistemic modality is to assess the degree of factuality that the speaker commits to the propositional value.

Category of epistemic modality: Epistemic modality has a subjectivity (speaker's assessment/ speaker-oriented), epistemic modality has an objectivity (propositional description/propositional oriented), epistemic modality has an evidentiality (marking both the source of information and the speaker's knowledge/belief) about the proposition.

Category of the propositional value: Since epistemic modality marks the degree of commitment that the speaker committed to the propositional value, therefore the propositional value will be analyzed on the scale "from high certainty to uncertainty" in the light of [\pm subjectivity] and [\pm evidentiality] to identify the [+necessity] and [+possibility] of the proposition. If the proposition is considered [+necessary], it is on the scale of "high certainty". If the proposition is considered [+possibility], it may be on the scale of "certainty" or "uncertainty".

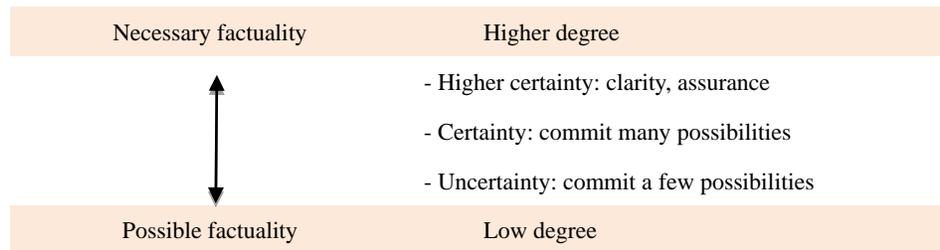


Figure 2. The degree of commitment of epistemic modality

Criteria for determining epistemic modality: To determine epistemic modality, we establish criteria to identify as well as narrow the research aim. Analysis of epistemic modality: Commitment to factuality of the proposition, the paper is based on Palmer's (1986):

- + The speaker's prediction
- + The speaker's inference
- + The speaker's report
- + The speaker's emotion through evidences: persons, direct, indirect, senses, etc.

Analysis of syntax: Based on the structure of Bally (1955) and Hao X.C. (2006), the utterance includes two parts "modus + dictum", modus is modality, dictum is the propositional content. With epistemic modality, the structure is "Epistemic modality + Proposition".

This structure assumes that there is the force **F** (epistemic modality force) acting on proposition **P** and causing proposition **P** to change its degree of factuality. **F** is the speaker's rating force (subjective) or the speaker's rating force of the real world (objective). The position of **E** can be at the beginning of the utterance, at the end of the utterance, and before the predicate as the center of predicate. That is, **E** is a free element when expressing the proposition.

The expressions of epistemic modality in English and Vietnamese: In English, epistemic modality expresses through tenses, aspects, moods, modal verbs, modal adjectives, modal adverbs, modal nouns, mental state verbs, epistemic phrases, intonation. In Vietnamese, epistemic modality expresses through modal verbs, mental state verbs, modal phrases, intonation.

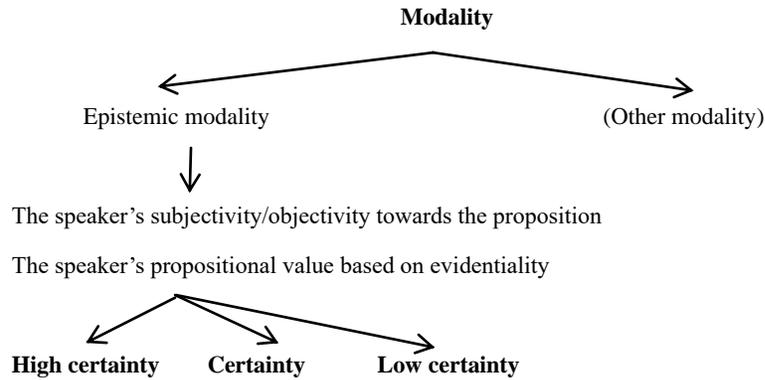


Figure 1. The analytical model of epistemic modality in degree of possibility

3. Methodology

To achieve the research objectives, the paper uses the following main methods:

3.1 Descriptive Method

This method is used to describe the syntactic and semantic features of epistemic modality expressions. In this method, the paper will use smaller methods like distribution, replacement, modification and context expansion to classify and systematize research issues.

3.2 Statistical Methods

After collecting data, the author will conduct statistics, classify words, phrases and utterances containing epistemic modality on research data, then classify the data into groups of subjects suitable for each research content, and finally draw a general pattern of expression.

3.3 Comparative Method

This method is used for the aim of pointing out the similarities and differences in the syntactic and semantic features of epistemic modality expressions based on the model drawn from the research results between the two languages.

These methods will be used flexibly, supporting each other in the process of implementation in the most scientific and effective way as possible.

3.4 Corpus Used in this Paper

Firstly, ANC American National Corpus is used. This is the source of about 500,000 texts of various genres in daily communication on blogs, emails, articles, news, letters, etc. expressed through spoken and written texts. Secondly, we use Collins' Copora. This corpus consists 550 million words updated daily from newspapers, magazines, websites, books, radios, and TV. Next, Cambridge Dictionary, and Hoang Phe Vietnamese dictionary is used to look up the meaning and uses the examples in the dictionary as a source of data. Other corpus is researched on the website <http://www.vietlex.com/kho-ngu-lieu> with the aim to survey and statistics the frequency of use of the surveyed words. This corpus has about 150 million words which is very suitable for language research founded by Professor Hoang Phe in 1993. Last but not least, the paper uses some data from Anh N.N.'s works like "Have a good day" and "I see yellow flowers in green grass" in both English and Vietnamese version.

4. Results and Discussions

To have a specific picture, the paper summarizes the similarities and differences between "thấy", "nghĩ" in Vietnamese and mental state verbs in English. We find that the mental state verbs express epistemic modality extremely strong in both English and Vietnamese languages. The reason is that, on the one hand, they directly give the speaker's thoughts, on the other hand, they also directly express the speaker's senses towards the propositional value. The structure with English mental state verbs such as "I see P", "I think P" has characteristics similar to the structure of Vietnamese such as "Tôi thấy P", "Tôi nghĩ P". This structure has a great pragmatic function, it expresses the speaker's goal, intention, perception about the proposition. Consider some situations below:

- (3) A: "Where was John last night?"
 (Tôi qua John ở đâu?)
 B: "He was at home."
 (Anh ấy ở nhà)
 B': "I think that he was at home."
 (Tôi nghĩ là anh ấy ở nhà)

B’’: “**I know from Jane** that he was at home.”

(Jane cho tôi biết anh ấy ở nhà)

The utterance in (3), “**I think P**”, “**I know from Jane P**” expresses the evidential functional status towards the proposition stated. The expression “I think P” marks the speaker’s subjectivity, while saying “I know from Jane P” marks the speaker’s objectivity. The speaker tells the hearer how the speaker knows the source of the information, and “Jane” is the evidential mark for the proposition. Therefore, the speaker commits the propositional value in B” higher than in B’.

In addition, the survey results also show that “see” in English and “thấy” in Vietnamese are the two most frequently used verbs in spoken. This similarity can be explained that human sensory experience, especially sight is the first and strongest human experience in the outside world. Humans perceive things and phenomena first by visual field “see/thấy” and then by other senses. As Sam T. (2020) said, “human sight is both the visual field and container” to observe and perceive the world.

It is also interesting that sensory perception in English exists many verbs expressing different strong and weak senses such as “see, look, seem, hear, sound, smell, feel”, while in Vietnamese only need the verb “thấy” to represent all senses. We can illustrate by (Figure 4) and prove as below:

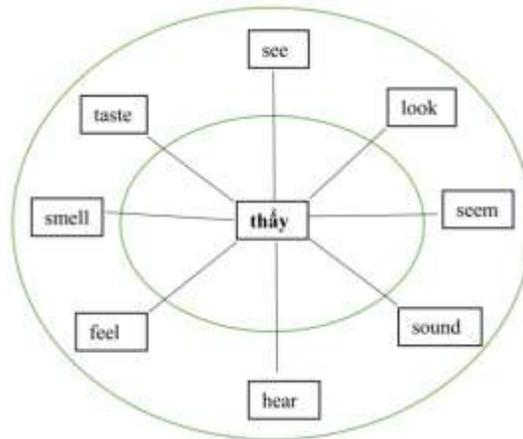


Figure 4. “Thấy” is the center of visual field compared with mental state verbs in English

(4) I **see** yellow flowers in the green grass.

(Tôi **thấy** hoa vàng trên cỏ xanh.)

(5) I **feel** bored.

(Tôi **thấy** chán quá)

(6) As she reached the bottom step, she **heard** the servants moving about in the dining room under the butler's orders, lifting out the table and chairs in preparation for the dancing.

(Khi đến bậc thang cuối cùng, cô ấy **thấy** những người hầu đang di chuyển trong phòng ăn theo lệnh của người quản gia, đưa bàn ghế ra để chuẩn bị cho tiệc khiêu vũ.)

(7) It **seems to me that** you are right.

(Tôi **thấy** bạn đúng rồi.)

(8) I **sound like** I'm 50 years old.

(Tôi (cảm) **thấy** mình như 50 tuổi vậy.)

(9) It **looks** to me to be a copy of a letter to the editor that I wrote.

(Tôi **thấy** nó giống như bản sao của lá thư mà tôi viết gửi cho người biên tập.)

(10) If you **smell** the heat, turn off it.

(Nếu anh (cảm) **thấy** nóng, thì tắt máy.)

(11) You can **taste** the chili in the dish.

(Anh có thể (nếm) **thấy** vị cay trong món ăn này.)

With the utterance (4), “see” is the same as “thấy” which is a visual sensory experience. The utterance (5) “feel” is also equivalent to “thấy”, or “cảm thấy” for feeling sensory evaluation. The utterance (6) “heard” is equivalent to “thấy” or “nghe” for assessing the auditory sense. With “seem” in utterance (7), “sound” in utterance (8) and “look” in utterance (9) are equivalent to “thấy” or “cảm thấy” for feeling sensory evaluation. The utterance (10) “smell” is the same as “thấy” or “ngửi thấy” for assessing the sense of smell. The

utterance (11) "taste" is equal to "thấy" or "nếm thấy" for assessing the sense of taste.

Through these situations, we find that "thấy" can represent to evaluate all Vietnamese senses without any ambiguity because, in each situation, the hearer/reader will determine which sense of "thấy" belongs to. For instance, "Tỡ thấy lạnh (I feel cold)" belongs to emotional sensory; "Tỡ thấy bạn nỡ hay đấy (I think you speak very well)" belongs to auditory and perceptual, giving opinions; "Tỡ thấy món này ngon đấy (I smell this food is delicious)" belongs to the sense of taste or smell; "Tỡ thấy nó mềm mềm (I see it's soft)" belongs to the sense of touch.

In addition to sensory evaluation, "I see P" and "Tỡ thấy P" also show through perceptive activity and this activity shows the speaker's evaluation status on what is said in the scale of possibility. For example, utterance (12-15), the structure "I see P" is equivalent to "I think P", or Vietnamese "Tỡ thấy P" in this case also means "Tỡ nghĩ P". The utterance (14) "I see P" is equivalent to "I know P" or "Tỡ biết P". And the utterance (15) "I see P" is the same as "I realized P" or "Tỡ thấy P".

(12) I see that you are a good person.

(Tỡ thấy (nghĩ) anh là người tốt.)

(13) I see something wrong with it.

(Tỡ thấy có gì đó sai sai.)

(14) I see why you didn't want to go out with him.

(Tỡ biết tại sao bạn không muốn đi chơi với anh ấy rồi.)

(15) I see that nothing can change your love for me.

(Anh thấy không có thứ gì có thể làm thay đổi tình yêu của em dành cho anh.)

In general, this similarity is firstly due to the same level of sensory evaluation, secondly because people's cognitive activities have similar characteristics that are subjective, and finally, the cognitive activities of human about the world can originate from the visual experience of "see/thấy", move to thinking "think/nghĩ" and then make judgments the result of the thinking activity "know/biết" or "don't know/không biết", etc., so when the speaker thinks that he has enough knowledge about the proposition, he will necessarily evaluate the factuality, otherwise, he will evaluate the possibility of the proposition. The cognitive activities of "see" and "thấy" can be simulated by Figure 5. From this illustration, it can be asserted that the structures "I see P" and "Tỡ thấy P" express epistemic modality on a possible scale. In which "see/thấy" is the center of senses and perception. This explanation is similar to Palmer's recognition (1986) of the strength and weakness of the senses: "sight > hearing > touch > smell/taste).

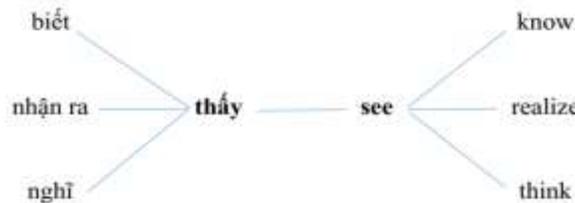


Figure 5. "see" và "thấy" express epistemic modality on the possible scale

As seen in table 2, it shows that human perceptual activity leads to different goals due to cognitive processes on the possible scale (we will discuss in the structural analysis "I think that P" as below:

Table 2. Mental state verbs express epistemic modality in English and Vietnamese

Category	Mental state verbs in English	Mental state verbs in Vietnamese	Possible scale
Senses	see, look, seem, hear, sound, smell, taste, feel	thấy	[± possibility] [± subjectivity]
Perceptions	know, think, believe, recognize, guess, doubt, wish, hope, dream, imagine, suppose	biết, thấy, nghĩ, tin, sợ, nghe nỡ, nhận ra, cho rằng, nghi, ước, hy vọng, tưởng, cho, đoán	

The second similarity in the structure of mental state verbs "I think (that) P" and "Tỡ nghĩ P" is in terms of the degree of evidentiality between two languages. This is also considered the central verb in the perceptual process. If we compare "I see (that) P", "Tỡ thấy P" with "I think (that) P", "Tỡ nghĩ P", the structure "I think (that) P", "Tỡ nghĩ P" is has a big rating on the possible scale as shown in figure 6.

In Figure 6, group [1] is factual assessment (high certainty); group [2] is non-factual assessment (low certainty) of the propositional value.

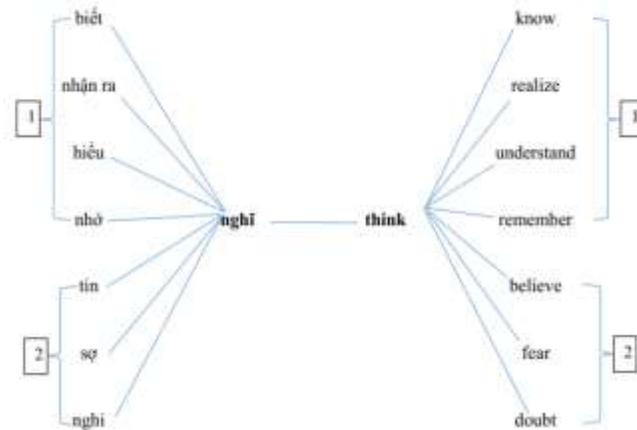


Figure 6. Expressions of mental state verbs “think” and “nghĩ”

(16) **I think** The Mekong River runs through China, Myanmar, Laos, Thailand, Cambodia, and Vietnam.

(Tôi nghĩ sông Mekong chảy qua Trung Quốc, Myanma, Lào, Thái Lan, Campuchia, và Việt Nam).

The utterance (16) “**I think P**” is an expression with a high degree of certainty like “**I know P**” that the hearer can be perceived because the proposition is always true in the objective world. And with the speaker, “**I think P**” in (16) can show the speaker’s caution or hedging about propositional value. Because of hedging function, we cannot say “**I think P**” instead of “**I know P**” as in (17). “**I know P**” is the speaker’s knowledge, so it has passed the first stage, the starting point “**I think P**” in cognitive process to see the world. Furthermore, the structure “**I know P**” in the utterance (17) can be replaced by “**I understand P**” because they both represent the speaker’s intellect. Even in Vietnamese, people also combine these two verbs together to express like “Anh hiểu biết rất rộng về vấn đề này (**I understand and know very well about this issue**)” to assess someone’s intelligence.

(17) **I know** you very well.

(Tôi biết anh rất rõ)

Also, because “**I think P**” is the antecedent perception in the cognitive process, the logic of “**I think P**” will evaluate the outcome of the process as shown in Figure 6. Considering proposition (18), even if we omit the evidence in the first phrase “After thinking carefully”, the proposition in “**I realized that we are [...]**” still implies that the speaker thinks, measures to make a factual commitment to the clause “**I realized that P**”.

(18) After thinking carefully, **I realized that** we are all imperfect and we still make mistakes.

(Sau khi suy nghĩ cẩn thận, tôi nhận ra tất cả chúng ta đều không hoàn hảo và chúng ta vẫn còn phạm sai lầm.)

If the utterance (18) “**I think P**” implies presence in “**I realize P**”, the utterance (19), the structure “**I can’t think P**” has the same meaning as “**I can’t remember P**” because in the process of “thinking” (thinking over and over) but the speaker still can’t think of, or can’t remember, forget. This phenomenon in psychology is called “mental blind spots” in human perception. Just like in the utterance (20), the speaker has anxiety or confusion due to objective impacts, so he cannot express what he has thought and intended to say before. Either way, evaluating the proposition with “**can’t think P/can’t remember P**” is a high certainty for the propositional truth value.

(19) **I can’t think** what your name is.

(Tôi không thể nghĩ ra tên anh là gì / Tôi không thể nhớ tên anh là gì)

(20) **I can’t think** of anything in front of you.

(Trước mặt em anh không nghĩ/nhớ được gì hết.)

Conversely, a lower commitment level of “**I think P**” will be equivalent to “**I believe P**”, and then the speaker will assess the possible proposition as possible. When we “**think/nghĩ**” something will occur, come true, we “**believe/tin**” about it. As the utterances (21,22), “**I think P**” is equivalent to “**I believe P**”, so “**I think P**” also has certain beliefs or expectations. In utterance (22), the speaker on the one hand announces the proposition, on the other hand commits the evidential by “**Experts think P**”. This can be seen as a way of borrowing someone else’s status to indirectly commit to the proposition. Furthermore, according to Kiparsky, P., Kiparsky, C., (1970), “**I think P**” when similar to “**I believe P**” is non-factual, low certainty evaluation because the propositional content has not occurred yet or has not been verified.

(21). **I think** God will help us.

(*Tôi nghĩ Chúa sẽ giúp chúng ta.*)

(22) *Experts think that the coming drought will be extensive.*

(*Các chuyên gia cho rằng đợt hạn hán sắp tới sẽ diễn ra trên diện rộng.*)

The structure "*I fear that P*" / "*Tôi sợ P*" expresses epistemic modality to evaluate the possibility, low certainty in the value of the proposition's factuality besides the psychological factor affecting the proposition. For example, in the utterance (23), the speaker assesses a possibility of the proposition "*she is lost*" that has both evidence and anxiety of the speaker. That means, "*I fear that P*", "*Tôi sợ P*" has gone through the process of thinking and inference, but the speaker has not found a reasonable conclusion for unexpected, unhappy situations. In the utterance (24), when hearing the argument in a family, the speaker makes a statement, and predicts that he does not want their argument to increase at a higher level. Cao Xuan Hao (2007) said that "*fear*" expresses a non-factual proposition.

(23) *I fear that she is lost.*

(*Tôi sợ nó đi lạc rồi.*)

(24) *I fear that the war will happen in that family.*

(*Tôi sợ chiến tranh sẽ xảy ra trong gia đình ấy.*)

The situation with "*I doubt that P*" / "*Tôi nghi P*" is the same as "*I fear that P*", "*Tôi sợ P*" expressed when the speaker thinks that the proposition is not factual or true. The structure "*I doubt that P*" both evaluates non-factual proposition, low certainty, and some psychological confusion. Proposition in (25), the information "*she arrived on time*" in the speaker's thoughts and judgments seems wrong, so the speaker doubts, but his doubt is still in the possible world of speaker's subjectivity.

(25) *I doubt that she can't be here on time.*

(*Tôi nghi cô ấy không đến đây đúng giờ.*)

In general, mental state verbs in English and Vietnamese have many similarities in both expression and meaning. In Vietnamese, if the verb "*thấy*" is the center evaluation for all senses, "*nghĩ*" is the center evaluation for the perceptual process. This is also recognized equivalence in English with the verbs "*see*" and "*think*". This similarity proves that first of all, the human visual field is basically nearly same, so when observing the world, they agree on colors, plants, animals, rivers, mountains, distance, etc., then they experience with the world, perceive and share ideas about the world (the process of "thinking" about the world) with different levels of perception. This is the same as in education, the result of the cognitive process of "knowing - understanding - applying - analyzing - synthesizing - evaluating - creating" is the level of evaluation of human cognitive value.

5. Conclusion

With mental state verbs in English and Vietnamese, the structure like "*I see (that) P*", "*I think (that) P*" is complete equivalent of Vietnamese "*Tôi thấy P*", "*Tôi nghĩ P*". These structures evaluate the speaker's subjectivity about the proposition through sensory experience and hedging with the speaker's knowledge and wisdom. Thereby, the speaker shows a high status and responsibility for what is said.

Another important feature of epistemic modality is subjectivity and objectivity. The speaker's "*I/Tôi*" clearly expresses or implies commitment to what is said. The subjectivity and objectivity have been signed by the language, so when expressing the subjectivity, the speaker often directly participates in the utterance such as "*I think P/Tôi nghĩ P*", and when expressing the objectively, the speaker indirectly participates in the utterance such as "*As you know P/Anh biết đấy, P*". When evaluating the objectively, the propositional value is committed higher than the subjective assessment because when speakers lack evidence, they often use the subjective expressions.

The nature of vocabulary and syntax basically exists value of factuality and non-factuality. For example, in English and Vietnamese, the verb "*doubt - nghi*" has the meaning of non-factual value, and "*know - biết*" has the meaning of factual value. In general, in the English and Vietnamese language systems, there are lexical and syntactic means used to express epistemic modality. These means mostly focus on the first position of the utterance (theme part). In both languages, mental state verbs are used to express the meaning of degree of factuality and the speaker's opinion, status about the proposition.

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