Investigating Modality in Two Selected Political Speeches on Covid-19 Pandemic

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Abstract: In grammar and semantics, modality is marked by linguistic devices that indicate the degree to which an expression is possible, probable, likely, certain, permitted, or prohibited. The simplest way to explain modality is to say that it has to do with the stance the speaker adopts towards some situation expressed in a speech utterance. Modality thus reflects the speaker's attitude towards the situation being described.

This paper discusses modality in two selected political speeches on Covid-19 pandemic: Joe Biden's speech on the fight against Covid-19 and Federal Chancellor Merkel's address to her nation on the spread of Covid-19. The paper aims to detect the types of modality employed and investigate their differences as well as significance in the chosen texts. This study consists of two parts. The first focuses on the concept of discourse, discourse analysis, modality and its types according to (Simpson's (1993) model of modality) as well as its categories and subcategories. The second part shows the practical investigation which involves the statistical analysis of modality, discussion of the results and the conclusions that the study arrives at.

Keywords: Modality, Deontic, Epistemic, Simpson, Discourse, Discourse Analysis.

في النحو وعلم الدلالة، يتم تمييز الموقفية بأدوات لغوية تشير الى الدرجة التي يكون فيها التعبير ممكناً او محتملاً او مؤكداً او مسموحاً به او محظوراً. إن أبسط طريقة لشرح ذلك هي القول بأن لها علاقة بالموقف الذي يتبناه المتحدث تجاه بعض المواقف التي يتم التعبير عنها في الكلام المنطوق وبالتالي تعكس الطريقة موقف المتحدث تجاه الحالة الموصوفة.

تناقش هذه الدراسة الموقفية في خطابين سياسيين مختارين حول جائحة كوفيد-19: خطاب جو بايدن حول مكافحة كوفيد-19 وخطاب المستشارة الألمانية أنجيلا ميركل الى بلدها بشأن انتشار كوفيد-19. تهدف الدراسة الى الكشف عن أنواع الموقفية المستخدمة والتحقيق في أختلافاتها بالأضافة إلى أهميتها في النصين المختارين. تتكون هذه الدراسة من جزأين. يركز

الجزء الاول على مفهوم الخطاب وتحليل الخطاب والموقفية وأنواعها وفقاً لإنموذج سمبسون (1993) بالإضافى الى تصنيفاته الفرعية. يوضح الجزء الثاني البحث العملي الذي يتضمن التحليل الأحصائي للموقفية ومناقشة النتائج والأستنتاجات التي توصلت لها الدراسة.

الكلمات المفتاحية: الموقفية والمواقف الواجباتية والمواقف المعرفية وسمبسون والخطاب وتحليل الخطاب.

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1. Introduction

Modality concerns itself with the speaker's assessment of, or attitude towards, the potentiality of a state of affairs. It relates to different worlds. It is what makes the difference between a factual assertion like *goblins never existed*, and a more guarded view like *it seems unlikely that goblins could ever have existed* – or an intense claim such as *the existence of goblins must always have been a myth*. Thus, modality is a resource used by speakers and writers when they stake claims to knowledge: it allows them to form variant types of claims such as opinions, assertions, hypotheses, etc. and indicate their degree of commitment to those claims.

2. Theoretical Background

This part provides a brief overview of discourse and discourse analysis. It also sheds light on the meaning of modality, its types in terms of Simpson's modal system (1993). It also presents a number of notions relevant to modality, its categories and subcategories.

2.1. Review of the Literature

There are many studies that examine and discuss modality. It has been investigated in different domains. Below is a survey of the main studies.

In a study by Jose Cristina M. Parina and Kristine D. de Leon (2014) entitled *"A Stylistic Analysis of the Use of Modality to Identify the Point of View in a Short Story"*, the researchers apply the modal framework by Simpson to Ian Rosales's "Things you Don't Know". In their study, they find (160) modal expressions: epistemic (62), boulomaic (10), perception (5) and deontic (3). They conclude that the large number of occurrences of epistemic modality makes the readers feel the uncertainty of the narrator as to the attitude of the characters as well as the situations

and events by relying only on the external appearance or surrounding. Some modals can add colour or feel to the text; therefore, the narrator's viewpoint can be controlled by the writer through these modal constructions. Finally, words of estrangement allow the narrator to assert himself/herself as the one to have the final word despite the uncertainty in the entire text. This allows the readers to interpret the signs in such a way that they feel is coherent with the depiction of the characters up to that point.

Another study is conducted by Sa'ad Salman Abdullah and Adawyia Sattar Abood in (2016) is entitled *"Hedges as Modality and Point of View in Narratives in Terms of Simpson's Model"*. This modal system is applied on three selected short stories: Wilde's "The Happy Prince", Saki's "The Open Window" and Poe's "The Black Cat" and two novels: Dicken's "Hard Times" and Hemingway's "The Old Man and the Sea". The researchers find (568) modal expressions: epistemic (249; 43.83%), deontic (100; 17.60%), boulomaic (69; 12.14%), perception (5; 0.88%), others (125). They conclude that the analysed texts provide important samples to examine hedges and to develop an awareness of how language functions. The frequency and percentage of hedges are different from one genre to another. In literary texts, the epistemic modality that conveys certain ideologies of uncertainty about the proposition is of great use. Thus, this leads to the discussion of suitability or appropriateness of particular hedged expressions to uncover and explain the hidden meanings.

Another paper is *"A Study of Modality and Point of View in Some Selected Short Stories"* by Ayad Abdul Razaq Abood in (2018). The researcher shows how modality systems are significant and helpful in illustrating the narrator's position to the fictional world and to the minds of the characters. The selected short stories are: Poe's "The Fall of the House of Usher", Hemingway's "The Last Good Country", and Flaubert's "A Simple Heart". The types of modality found in Poe's story are epistemic (83) and perception (51), whereas the types of modality in Hemingway's story are deontic (34) and boulomaic (85). In Flaubert's story, the dominant type of modal shading is neutral due to the absence or the little use of modalities. It is concluded that the frequent use of epistemic and perception modalities, in Poe's story, highlights the uncertainty and bewilderment of the narrator as it is narrated in the first-person. In Hemingway's story, deontic modality which reveals the speaker's attitude towards the degree of obligations, and boulomaic modality which denotes the speaker's wishes and desires, are foregrounded. The story is narrated in the third person and has a reflector

mode. Flaubert's story is narrated in the third person and has a narratorial mode with neutral shading which is characterised by the absence or little use of modality.

2.2. Defining Discourse

Discourse, as asserted by Schiffrin (1994: 20-21), is defined in two ways: a specific unit of language (above the level of the sentence), and a particular focus (on language use). Johnstone (2008: 2) defines discourse *"as actual instances of communicative action in the medium of language."* For Jørgensen and Phillips (2002: 1), discourse refers to the general notion that language is structured in agreement with different patterns that people follow in their utterances of the different domains of social life like 'medical discourse' and 'political discourse'. It is a specific way of thinking about and understanding the world i.e. an aspect of the world. In the words of Goddard and Carey (2017: 4), discourse is a scale of activity. It denotes the expressions of ideas that come from a particular area of the human activity; therefore, discourse refers to a linguistic register that has evolved through group interaction, where members of a certain community share knowledge of how things are done, including the ways communication is achieved.

2.3. How Language is Used: Discourse Analysis

Gee (2011: 121-122) discusses that discourse analysis involves asking questions about how language is used in a particular given time and place to engage in a seven-building-task that includes significance, practices, identities, relationships, politics, connections, and sign system and knowledge. Discourse analysis, for Brown and Yule (1983: ix), refers to the way humans use language to communicate. Stubbs (1983: 1) views discourse analysis in terms of attempts to examine the organisation of language above the sentence or clause, and to study larger linguistic units such as spoken exchanges or written texts. Baker and Ellece (2011: 32) focuses on discourse analysis in the light of how meanings and structures are signalled in texts taking into consideration issues relating to power, inequality and ideology.

2.4. Modality: State of the Art

A fundamental function of linguistic communication is to establish and maintain social harmony among human beings. In doing this, speakers and writers

have, at their disposal, an inventory of linguistic expressions that they can be used to convey complex emotions and feelings to their interactants. Many of these interpersonal characteristics of discourse can be realised in the notion of modality since modality refers to aspects of language which reveal a speaker or writer's attitude towards a particular subject (Gavins, 2007: 91).

Crystal (2008: 309) defines modality as a term used in grammatical and semantic analysis to refer to contrasts in mood signalled by the verb and related categories. In English، modal contrasts are basically expressed by a subclass of auxiliary verbs such as ***may, will, can***. Modal verbs share a set of morphological and syntactic properties such as no ***-s, -ing or -en*** forms which distinguish them from other auxiliaries.

Language, in its interpersonal function, is utilised to show the speaker's attitude and judgment when s/he communicates with others. Mood and modality are recognised in the lexicogrammar of the language as a means to convey meanings. Mood is the system that is realised in the selection of the three main illocutionary acts in terms of indicative، interrogative and imperative. Modality, on the other hand, is the speaker's opinion or judgment on the content and speech function of the clause. It points to the area of meaning that lies between the positive and the negative poles and whether the process is or is not realised (Suhadi, 2011: 158).

Halliday (2004: 144) mentions that modality means likely or unlikely (if a proposition) and desirable or not desirable (if a proposal). A proposition may become debatable when it is assessed in terms of the degree of probability or obligation associated with it. In other words, modality reflects the many shades that exist between positive or negative poles i.e. what the modality system does is to construe the region of uncertainty that lies between 'yes' and 'no'. Halliday (2004: 177) also states that in a proposition, the meaning of the positive and negative pole is assertion or denial; the meaning is positive in ***'it is so'***, while negative in ***'it isn't so'***. In other words, Halliday differentiates between two kinds of intermediate possibilities: **(i)** degrees of probability: **'possibly/probably/certainly'**; **(ii)** degrees of usuality: **'sometimes/usually/always'**. Degrees of probability are equivalent to 'either yes or no', that is, maybe yes, maybe no, with variant degrees of likelihood attached. Degrees of usuality are equivalent to 'both yes and no', that is, sometimes yes, sometimes no,

with variant degrees of oftenness attached. These scales of probability and usuality are what the term 'modality' completely belongs to.

In the words of Wasserman (2012: 3), modality is concerned with personal stances and attitudes. It is utilised to display the speaker's attitudes towards his/her state of affairs, towards the addressee, and the expectation of the addressee's attitudes. Then, a modal statement springs out of some kind of reflection or introspection of the speaker in regard to a specific given state of affairs. The speaker aims at conveying his/her notion about the situation, regularly trying to steer the addressee's opinions towards the state of affairs at stake.

In a social context, a language user, exchanges his/her linguistic experience with others which is realised in the form of an utterance or a text. Modality is part of an action done by the language users when they exchange their linguistic experience with each other. Thus, a language user may give his/her own suggestion or comment by virtue of what s/he is saying. Modality contains the addresser's perspective, consideration, attitude or judgment with regard to the information or goods and services which are recognised by way of a statement, question, offer, and command (Suhadi, 2004: 158).

2.5. Types of Modality in View of Simpson's Modal System (1993)

Simpson (1993: 43) asserts that modality denotes a speaker's attitude towards, or opinion about, the truthfulness of a proposition revealed by a sentence. It extends to attitude towards the situation expressed by a sentence; therefore, modality is a prime exponent of the interpersonal function of language. In this respect, modality in English can be identified and described in terms of four modal systems which are **deontic, boulomaic** and the **epistemic** along with the latter's subsystem of **perception**.

Simpson (1993: 43-44) and Kearns (2011: 82) mention that the **deontic modal system** is used to express our notions of duty through language i.e. the modal system of 'duty'. It is concerned with the speaker's attitude to the degree of obligation attached to the performance of particular actions. Simpson (1993: 44) also asserts that deontic modality is of considerable relevance to the social strategies of interaction, particularly to tactics of persuasion and politeness. The following examples contain deontic modal auxiliaries that denote ***permission*** in **(1)**, ***obligation*** in **(2)** and ***requirement/prohibition*** in **(3)**:

(1) You may leave.

(2) You should leave.

(3) You must leave.

Simpson (1993: 44) also mentions that deontic modality can be expressed by combining adjectives and participles such as [**be…. that** and **be…. to**] as in **(4)** and **(5)**. Such combinations represent a comparable continuum of commitment.

(4) It is necessary that you leave.

(5) You are obliged to leave.

According to Palmer (2001: 71), deontic modality is defined in terms of ***directives*** where speakers try to get the hearers to do something, and ***commissives*** where speakers commit themselves to do something.

Simpson (1993: 44) and Gavins (2007: 94) agree that closely related to deontic modality is the **boulomaic modality**. The boulomaic modal system is extensively grammaticalised in English in the expressions of ***wish, hope*** and/or ***desire*** which can be utilised to indicate a boulomaic commitment. Such expressions can be positive or negative in nature in relation to a specific proposition and are central to the boulomaic system. Moreover, the boulomaic modal system can be expressed by modal adverbs like ***hopefully*** or ***regrettably*** as in **(6)**, and a combination of adjectivals and participles which take a [**be… that** or **be… to**] structure as in **(7)**:

(6) Regrettably, he passed away so young.

(7) It is hoped that they will win the match.

Palmer (2013: 50-51) stresses that **epistemic modality** is strictly related to propositions rather than actions, states, events, etc. Epistemic modality, in its syntax and semantics, is mostly distinct from the other types and has the greatest degree of internal regularity and completeness. Epistemic modals contribute to making judgements about, for instance, the possibility of something and whether it is or is not the case. Moreover, it is clear that epistemic judgements rest with the speaker, that is, epistemic modals are subjective.

Epistemic modality is as a linguistic expression of an evaluation of the chances that a particular hypothetical state of affairs under investigation will happen,

is happening or has happened in a possible world. In other words, epistemic modality concerns itself with an estimation of the likelihood that a specific given state of affair is, has been or will be true or false in the context of the possible world under consideration (Nuyts, 2001: 21-22). Declerck (2011: 33) mentions that epistemic modality relates to the degree of compatibility between the modal world and the factual world. Utterances that contain epistemic modals express the speaker's evaluation of the relation between the modal world in which the residue situation actualises and the factual world. Hence, a sentence like **(8)**, which describes Bill's situation of being stuck in a traffic jam is possibly actualised in the factual world:

(8) Bill may be stuck in a traffic jam.

Declerck (2011: 34) differentiates between two major types of epistemic modality. The first type is **specified epistemic modality**. According to this type, epistemic relation between the modal and factual worlds is specified. For example:

(9) Dave **may** be lying.

In the sentence above, the modal world created by ***may*** is connected to the factual world in terms of epistemic possibility: the residue proposition has the factuality value 'possibly factual'. Thus, this means that Dave's situation of being lying is possibly actualising in the factual world i.e. the modal world possibly coincides with the factual world.

The second type is **indeterminate epistemic modality**. In this type, the epistemic status of the nonfactual world is not specified i.e. its factuality value stands in opposition to the factual world. This type is found in conditionals with a 'neutral theoretical' conditional clause, for example:

(10) If you heat ice, it melts. (general truth)

(11) If a woman has a history of cancer in her family, she should have herself checked at least once a year. (subject NP with nonspecific reference).

In these examples, there is no presupposition or assumption on the part of the speaker that the supposition is true, untrue, likely to be true, or as a real possibility. That is to say, there is no specified epistemic relation between the suppositional modal world and the factual world in terms of a factuality value.

The last system of modality is **perception modality**. According to Perkins (1983: 81 as cited in Simpson 1993: 46), this system is best described as a subcategory of epistemic modality. This type is recognised by the fact that the degree of commitment to the truth of a proposition is predicated in some reference to human perception, normally visual perception. Adjectives in [be… that] combination are particularly significant, as are related modal adverbs as evident in the following examples:

(12) a. It's clear that you are right.

b. You're clearly right.

(13) a. It's obvious that you're right.

b. You're obviously right.

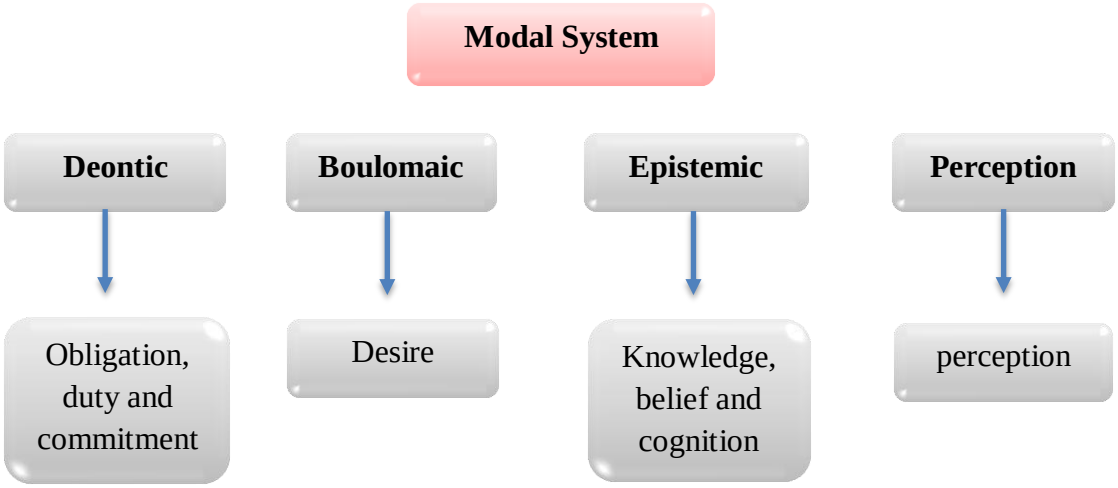

Figure (1): An Overview of Simpson's Modal System (1993)

To sum up, the expression of any degree of obligation, from ***permission*** through to ***requirement***, generates a deontic modal-world. The use of boulomaic modality, involving any description of ***wishes, desires*** or ***fantasies***, will generate a boulomaic modal-world in the minds of the interacting participants. Epistemic modal-worlds occur whenever some form of an epistemic commitment is shown in discourse. Finally, the perceptual modal-world is a 'mode of presentation' of a particular stimulus. We may encounter an object in many variant ways, but one basic and simple aspect of any perception will be the mode — ***visual, auditory, haptic*** etc.

2.6. Some Concepts Related to Modality

There is a number of concepts that have been proposed as modal categories. One of them is **mood** which is utilised in variant ways, most significantly to denote the inventory of the basic types of utterance in a language such as ***declarative, interrogative, imperative, optative****, etc.*, and to capture distinctions such as ***indicative*** vs. ***subjunctive*** or ***realis*** vs ***irrealis***. Obviously, both uses display relations to the traditional modal categories, however, there are other different views as to how to see them. Scholars like Bybee et al. (1994), include both domains under modality while other scholars like van der Auwera and Plungian (1998), exclude them from modality, assigning the issue of utterance types to illocutions, and considering both domains as formal categories of grammatical expressions of modality, along with other expressive devices such as auxiliaries, adverbials, etc. Modality, in the latter view, is a semantic notion whereas mood is a grammatical one (Nuyts, 2006: 8).

Another issue to be explored here is that of **alethic modality**. According to (Nuyts, 2006: 8-9), this category is originally proposed in the context of modal logic, and it also occasionally features in formal semantic approaches to modality. This notion, as discussed in those frameworks, is close to, yet distinct from epistemic modality. While alethic modality concerns itself with *modes of truth* (the necessary or contingent truth of propositions), epistemic modality is related to *modes of knowing* (the state of a proposition in terms of knowledge and belief). This distinction raises the suggestion that one should distinguish between types of likelihood in terms of something like *truth in the world* vs. *truth in an individual's mind*. This suggestion has been criticised by Palmer (1986: 11) who emphasises that "*there is no distinction between […] what is logically true and what the speaker believes, as a matter of fact, to be true*" and "*there is no formal grammatical distinction in English, and, perhaps, in no other language either, between alethic and epistemic modality*".

Evidentiality is another notion related to modality. In semantics, it is defined in terms of epistemic modality where propositions are asserted as open to be challenged by the hearer, and thus require justification. Utterances containing evidential constructions express the strength of commitment of the speaker to a proposition in terms of the available evidence, rather than in terms of possibility or necessity (Crystal, 2008: 176). According to Nuyts (2006: 10-11), evidentiality is usually taken to cover variant subcategories of information source:

- Directly perceived by the issuer's own sense (*experiential*) as in **(14a)** where it is expressed by the main predicate.
- Indirectly deduced on the basis of other, directly perceived information (*inferential*) as in **(14b)** where it is expressed by the adverb, or derived from or compatible with other general background knowledge (*reasoned*) as in **(14c)** where it is expressed by the predicative adjective.
- Received from others (*hearsay* or *reportative*) as in **(14d)** where it is expressed by the main predicate.

(14) a: I've **noticed** that he's quite down lately.

b: Apparently he's in the house – at least, his car is in the garage.

c: Your explanation sounds very **plausible**.

d: I **hear** he is the gold-winner of this year.

2.7. Dimensions of Subcategorising Modal Categories

In addition to the different categories of modality, one can also find dimensions which further subdivide (some of) them. These dimensions are used to account for differences in certain usages of modal statements or for different usage properties of modal expression types.

One dimension is **subjectivity** in contrast to **objectivity**. This distinction often features in discussions of epistemic modality. However, one can also notice it in deontic modality. According to Lyons (1977: 797), the notion of **subjectivity** involves a purely subjective guess about its truth. The notion of **objectivity**, on the other hand, expresses an objectively measurable chance that the state of affair under investigation is true or not. A sentence like *Alfred may be unmarried*, can indicate that the speaker is either uncertain about the hypothetical fact of the Alfred's marriage **i.e. subjective modality**, or s/he may mean that there is a mathematically computable chance that Alfred is unmarried, for instance, because he belongs to a community of ninety people, of which there are thirty unmarried. Thus, one chance in three that he is unmarried **i.e. objective modality**.

Another dimension is the issue of **performativity** and **descriptivity**. A performative expression indicates an attitude to which the speaker is totally committed at the time of speaking. On the contrary, in a descriptive expression, the speaker is not committed, but only reports an attitude about some state of affairs held by someone

else, or by the speaker her/himself at some point in time other than the time of speaking or as a hypothetical possibility. However, this concept is distinct from speech act performativity even though both involve the performance of something around a here-now dimension, and in both, this performance is expressed on the spot by means of the speech. However, speech act performativity is concerned with a linguistic act towards a hearer, while modal performativity has to do with an evaluation of a state of affairs in terms of some criterion (Nuyts, 2006: 15).

2.8. The Realisation of Modality

Modality in English can be recognised by different linguistic units. Suhadi (2011: 158-160) lists a number of units through which one can express modality and as follows:

1. Modals

The best way to express Modality is by using modal verbs such as (***must, can, could, may, might, will, would, shall, should, ought***) and the semi modals (***need*** and ***dare***). Statements of modality including one of these modal operators may vary depending on the context in which they are performed:

(15) a. You **must** stop smoking. (obligation)

b. It's raining now; the teacher **might** not come today. (probability)

c. Mark **can** lift this heavy weight. (ability)

d. You **can** write the assignment later. (permission)

2. Modal Adjuncts

Modality is also expressed through adjuncts like (***definitely, certainly, possibly, probably, maybe, perhaps, surely, obviously, always, usually, etc.***):

(16) a. Probably, she visits us today.

b. The election will **certainly** be held next month.

c. Possibly, it rains again today.

3. Lexical Verbs

Some lexical verbs can be utilised to show modality such as (***believe, think, beg, allow, forbid, command, guarantee, promise, guess, suppose, suggest, etc***.):

(17) a. I **believe** he can do it himself.

b. We **suppose** that all employees are doing their best.

4. Lexico-modal Auxiliaries

Modality is also revealed by using lexico-modal auxiliaries such as (***be able to، be apt to, be about to, be bound to, be due to, be certain to, be liable to, be going to، be sure to, be likely to, be to, be supposed to, be meant to, have got to, have to, had better, would sooner, would rather, etc.***)**:**

(18) a. He will **be able to** cope with the work.

b. It **is likely to** snow this evening.

5. Clause with adjective

Modality can be realised in a clause-adjective combination. This combination can be followed by an infinitive or that-clause. The most used adjectives which show modality are (***certain, sure, possible, likely, probable, willing, etc.***):

(19) a. He **is probable to** get home afternoon.

b. It is probable that he answers the questions.

6. Clause with Past Participle

Combinations including a clause and past participle can express modality. A number of common past participle verbs are (***allowed, determined, obliged, supposed, etc.***). These combinations are followed by either an infinitive or a that-clause:

(20) a. He felt **obliged** to tell her the whole truth.

b. Smoking it not allowed in hospitals.

7. Clause with Noun

Another way to show modality is through a combination of clause and noun. Such clauses begin with an impersonal ***it***, or an existential ***there*** followed by a noun or that-clause. Common nouns utilised to reveal modality are (***certainty, must, possibility, likelihood, determination, etc.***):

(21) a. ***It*** is a **must** that you fasten your seatbelts.

b. ***There*** is a **possibility** that I sell this house next year.

8. Conditional Clause

Conditional clauses can be used to produce modality. If a condition is fulfilled, it is possible, probable or certain that another condition will happen:

(22) a. If the shops are shut, I will be annoyed. (Possibility)

b. Unless you study hard, you can't get good marks. (Probability)

c. If yellow is mixed with red, it will become orange. (Certainty)

9. Modal-Adjunct Combinations

Combinations consisting of a modal operator and an adjunct such as (*will definitely, might possibly, must always, can sometimes, etc.*) can be used to perform modality:

(23) a. Covid-19 **will definitely** end one day.

b. The treasure **might possibly** be found near this lake.

c. The students **must always** be prepared to have a quiz.

3. Data Analysis and Discussion

Expressions of modality are found in the two texts under investigation. Both texts contain two types of modality only: **epistemic** and **deontic**. Thus, this section is meant to analyse expressions of epistemic and deontic modality.

3.1. Analysing Modality in Biden's Speech

Throughout his speech, Biden frequently uses modal expressions, which vary in their strength, indication, and politically speaking, in their power. Concerning **epistemic modality**, its meaning is classified in terms of certainty; therefore, it can be divided into certainty, probability and possibility. **Epistemic certainty** conveys the highest degree of confidence based on the speaker's knowledge of a specific proposition. To show his certainty, Biden basically uses the **modal 'will'** as in sentences **(24)** and **(25)**:

(24) *So starting this week, **I'll** be deploying hundreds more vaccinators and more sites to help get the booster shot in peoples' arms.*

(25) *But it's not enough. We have to do more. We have to do better, and we **will**.*

In sentence **(24)**, Biden expresses his certainty of the measures used to face the new version of coronavirus 'Omicron'. He is certain to open new sites and double the number of vaccinators to protect as much people as possible or to facilitate the administration of the booster shot (the third shot of vaccine). Similarly, in sentence **(25)**, he shows his highest degree of confidence saying that we, as government and as people, have to do our best to stop the spread of the virus. This is a must and in "we will", Biden makes a promise.

Biden also expresses his epistemic certainty by using **modal adjuncts** such as **'absolutely'** in the following sentence:

(26) *The answer is **absolutely** no. No.*

In his answer to a question that he is often asked about consequences of the virus, Biden points to the current situation of the virus and what the government faces now in contrast to when the virus first hit. They now know for certain the nature of the virus and the steps to contain and survive it.

As mentioned earlier, epistemic certainty can be expressed through the use of **lexical verbs**. Biden employs a number of lexical verbs to show his certainty, for instance:

(27) *We can do this together. I **guarantee** you.*

Getting the vaccine or the booster shot is what Biden urges people to do again and again in his speech. Consequently, when more people are vaccinated, *"we become better and stronger"*, Biden announces. This vaccine along with peoples' awareness and careful actions, Biden guarantees, will limit and weaken the ability of the virus to spread.

Epistemic certainty can also be produced by the use of **conditional clauses** such as the ones in the following sentences:

(28) *If you're fully vaccinated, and especially if you get your booster shot, you are highly protected.*

(29) *If you're unvaccinated, you're at higher risk of getting severely ill from Covid-19, getting hospitalized, and even death.*

If a condition is fulfilled, another condition will take place. Thus, in sentence **(28)**, the first condition is what makes the second one certain. More specifically, get the vaccine and you will be safe. In contrast, the first condition in sentence **(29)** makes the second one certain. Unvaccinated people absolutely face higher and severe risk or even death once they are infected.

Regarding **epistemic probability**, it conveys the median degree of confidence on a proposition based on the speaker's knowledge. Biden uses different forms to express epistemic probability. In one case, he uses **modals** like **'should'** as in sentence **(30)**. In another case, he uses **modal adjuncts** like **'potentially'** as in sentence **(31)**. Moreover, he utilises **lexico-modal auxiliaries** like **'be likely to'** as in sentence **(32)**, and conditional clauses such as the one in sentence **(33)**:

(30) *We're providing access to free at-home tests for those who may have insurance as well – may not have insurance, I **should** say, as well.*

(31) *And because Omicron spreads so easily, we'll see some fully vaccinated people get Covid, **potentially** in large numbers.*

(32) *And if you get sick, you'**re likely to** spread it to others, including friends and families.*

(33) *If you want an immediate test, there will be a place where you can get it*.

Biden's utterance, in sentence **(30)**, expresses epistemic probability in that people with insurance will get free at-home tests. He adds that people who do not have insurance will probably get the free tests as well. It is probable that vaccinated people get Covid-19 as well. The probability thus in sentence **(31)** is showed in the use of the modal adjunct 'potentially'. In sentence **(32)**, Biden urges people to act carefully because any infected individual can spread the virus and make the whole situation highly dangerous. In sentence **(33)**, Biden says that there will be a place for people who want an immediate PCR (Patient Review and Coordination) test if anyone suspects s/he has he virus.

Biden also uses a number of **epistemic possibility** expressions to convey the lowest degree of confidence in a proposition based on the speaker's knowledge. He employs **modals** like **'may'** and **'can'**, and **lexical verbs** like **think** as in the following sentences:

(34) *You **may think** you're putting only yourself at risk, but it's your choice.*

(35) *You know, these companies and personalities are making money by peddling lies and allowing misinformation that **can** kill their own costumers and their own supporters.*

Talking to his people in sentence **(34)** saying that being not vaccinated is surely their choice, Biden makes a clear announcement that this choice is not only about oneself, but about the whole community. One may affect other people including family, loved ones, friends and neighbours, more importantly, the elderly people. So, there is a possibility that one affects other people. In sentence **(35)**, Biden criticises some companies and personalities for deceiving their own supporters for money. The lies they tell about the virus and vaccination possibly put their costumers at high risk.

The other type of modality found in the text is **deontic modality**. It indicates how the world ought to act according to specific norms, expectations, desires, etc. A sentence including a deontic modal indicates some action that would change the world so that it becomes closer to the standard or ideal status. Deontic modality has to do with necessity, advisability and possibility. **Deontic necessity** refers to the highest degree of obligation of a command. It can be expressed by various linguistic elements such as **modals** like **'must'** and **'have to'** in the following sentences:

(36) *We **must** also keep our K-12 schools open.*

(37) *But it's not enough. We **have to** do more. We **have to** do better, and we will.*

In sentence **(36)** Biden shows his highest degree of obligation that it is necessary to open the schools of K-12. Similarly, **'have to'** in sentence **(37)** shows the way people must react to stop spreading coronavirus and they must do more and better.

Deontic advisability denotes the median degree of obligation of a command. In the text, it is expressed by the **modal 'should'** as in sentence **(38)** where Biden says that everyone should be serious about the new version of coronavirus. Everyone, he stresses, should act carefully in crowded areas. People should take all the necessary ways of protection into consideration. However, this version of the virus should cause no panic. Life should go on smoothly and people also should go on living their lives:

(38) *We **should** all be concerned about Omicron but not panicked.*

Finally, **deontic possibility** also occurs in the text. It indicates the lowest degree of obligation of a command. It can be noticed through the use of **modals** such as **'can'** in sentence **(39)** where Biden urges his people to have their vaccination shots and/or to have the boosters. This is not only a choice, but a necessity. It is a choice that can affect society greatly, if the infection is not taken seriously, and particularly if people do not take their vaccination shots. This choice is a two-side weapon since it either saves peoples or endangers them:

(39) *Your choice **can** be the difference between life or death.*

The frequencies and percentages of modality detected in Biden's speech appear in Table (1):

Table (1): Frequencies and Percentages of Modality in Biden's Speech

Types of Modality	*Frequency*	*Percentage*
Epistemic	88	70.96%
Deontic	36	29.03%
Boulomaic	0	0%
Perception	0	0%
Total	**124**	**100%**

3.2. Analysing Modality in Merkel's Speech

Merkel, as she addresses her nation, uses a considerable number of modality expressions. Throughout her speech, she resorts to two types of modality: **epistemic** and **deontic**. Concerning **epistemic modality**, it refers to the use of modality which is based on the speaker's evaluation and judgement in relation to the degree of confidence of knowledge on a proposition. As a result, it functions as a commentary to evaluate reality.

Merkel expresses her highest degree of confidence by employing **epistemic certainty** expressions. In doing so, she uses **modals** such as **'will'** in the following contexts:

(40) *Things **will** get even more difficult in the weeks ahead.*

(41) *I am certain there's plenty more we can do. We **will** prove, as a community, that we will not abandon one another.*

Speaking of the difficulties that Germany faces due to the spread of coronavirus in sentence **(40)**, Merkel is certain that the coming weeks are more difficult for the economy, companies, small businesses, shops and restaurants, and more importantly for peoples' health. However, in sentence **(41)**, she is certain that Germany as a nation and as individuals, will face these difficulties; *"we will prove that for the world"*, she says.

Another way in which Merkel expresses her certainty is supported by **modal adjuncts** like **'absolutely'** as in sentence **(42)** where Merkel is certain that in the end, they will overcome this crisis, no matter what happens in the days ahead:

(42) *I have **absolutely** not doubt that we **will** overcome this crisis.*

Also in this sentence, she emphasises her certainty by doubling her confidence by using the modal **'will'**. As a result, two different expressions of confidence occur in one statement, a matter that enhances Merkel's position of certainty.

Another way used by Merkel to show certainty is by using **lexical verbs** and **conditional clauses** as in the following sentence:

(43) *I firmly **believe** that we **will** pass this test if all citizens genuinely see this as THEIR task.*

In the above sentence, Merkel's certainty is manifested by three different expressions of epistemic certainty. She utilises **'if conditional clause'**, the **lexical verb 'believe'** and the **modal 'will'**. Her belief in her people, will certainly help in passing the difficult situations that coronavirus causes. The occurrence of such three modal expressions in one sentence helps to show the speaker's certainty and makes the statement more powerful, politically speaking. This also has a great effect on peoples' feeling, giving a sense of relief and confidence, as well as letting them know that they are not alone in facing such a dire time. Merkel is, therefore, accurate in her choice of the expressions that affect her society. She seems to give her people a role to help the nation through this crisis, implying that this is a task for all because it is a necessity.

Epistemic probability relates to the possession of knowledge or information. In this sense, it can be measured in the degrees of belief or rational belief. In other words, it conveys the median degree of confidence on a proposition based on the

speaker's knowledge. In Merkel's speech, epistemic probability is expressed by employing **conditional clauses** and **modal adjuncts** like **'perhaps'** as in the following sentences:

(44) *If supermarkets shelves happen to be empty on one day, they will be filled again on the next.*

(45) *Germany has an excellent healthcare system,* ***perhaps*** *one of the best in the world.*

Merkel, in sentence (**44**), points out to the probability that the moment supermarkets are empty, they will be loaded again the day after so as to avoid any shortage in food supplies. Based on some mathematical and statistical criteria, Germany in sentence **(45)**, as Merkel points out, is probably one of the finest healthcare systems in the world. This probability is expressed by using the modal adjunct **'perhaps'**.

The last category of epistemic modality is **epistemic possibility**. This category refers to the lowest degree of confidence based on the speaker's knowledge of a proposition. It is expressed by **modals** like **'may'** and **'can'** in sentences **(46)** and **(47)**. It is also triggered by using **modal adjuncts** like **'possibly'** in sentence **(48)** and **'maybe'** in sentence **(49)**:

(46) *The government will constantly reassess what measures can be adjusted and also what further measures* ***may*** *still be necessary.*

(47) *…. then only one thing matters, namely that we slow the spread of the virus, flatten the curve over the course of several month and by time. Time in which the research community* ***can*** *develop a medicine and vaccine.*

(48) *We must limit the risk of one person infecting another as much as we* ***possibly*** *can.*

(49) *We are staying in touch via Skype, phone, email, and* ***maybe*** *also by writing old-fashioned letters.*

In sentence **(46)**, Merkel refers to the possible measures that the government can and may take and which they see as necessary in their fight against the virus. She, in sentence **(47)** is aware of the importance of slowing down the virus while looking forward to the possibility of finding a cure/vaccine. In sentence **(48)**, Merkel stresses the importance of containing the virus to reduce the possibility of its spread. In

sentence **(49)**, Merkel refers to the various possible ways that people can use to keep in touch during lockdown, whether via social media applications or even by resorting to the old way of letter writing.

Deontic modality is also used by Merkel to show the degrees of obligation. Deontic modality shows whether the proposition expressed by a command is obligatory, advisable or possible based on some normative background. Like epistemic modality, the meanings of deontic modality are classified in terms degrees of obligation: necessity, advisability and possibility. With regard to **deontic necessity**, it refers to the highest degree of obligation of a command. It can be expressed by **modals** such as **'must'** in sentence **(50)**:

> **(50)** *We **must** be considerate and keep a safe distance from one another. Virologists are giving us clear advice: no more handshakes, we **must** wash our hands thoroughly and often, and we **must** keep at least one and a half metre's distance between ourselves and others.*

Speaking about the necessary ways of protection, Merkel addresses her people in the highest degree of obligation saying it is a necessity that a person regularly washes her/his hands and more significantly keep a half-metre social distance between one person and another.

Deontic advisability denotes the median degree of obligation of a given command. Throughout her speech, Merkel uses only one form to express her advisability. She uses the **modal 'should'** as in the following sentence:

> **(51)** *Ideally, we **should** avoid all contact with the elderly, because they are particularly at risk.*

Stressing the ways of protection, Merkel says that the elderly people should be treated with utmost care. If they catch the virus, they will be at the highest risk of being severely ill or may even die. Thus, she gives an obligation with a median degree, meaning not to contact the elderly unless they need help or care.

Finally, the **deontic possibility** can be also detected in the text. This category indicates the lowest degree of obligation of a command. In this sense, it implies the sense of permission. In the text, this category is found only in expressions containing **modals** like **'can'** as in the following sentence:

(52) *We* ***can*** *protect ourselves and offer one another encouragement and support.*

Dealing with this health crisis, Merkel expresses her lowest degree of obligation by using **'can'**. She tells the people that they need to act *"warm-heartedly and rational"*. This can save lives and show that all the people are united. Such attitude gives a sense of encouragement and support.

Table (2) illustrates the frequencies and percentages of the types of modality recognised in Merkel's speech:

Table (2): Frequencies and Percentages of Modality in Merkel's Speech

Types of Modality	*Frequency*	*Percentage*
Epistemic	62	68.13%
Deontic	29	31.86%
Boulomaic	0	0
Perception	0	0
Total	**91**	**100%**

4. Findings and Discussion

Upon the analysis of modality available in both texts, we have arrived at some significant results. The distributions of modality in the two texts are illustrated in the following table:

Table (3): Modality in Biden and Merkel's Speeches

Types of Modality	*Biden's Speech*	*Merkel's Speech*
Epistemic Modality	**88**	**62**
Certainty	37	33
Probability	16	5
Possibility	28	22
Others	7	2
Deontic Modality	**36**	**29**
Necessity	11	11
Advisability	10	5

Possibility	13	10
Others	2	3
Boulomaic Modality	0	0
Perception Modality	0	0

Based on the data analysis and the results in table (3), **epistemic modality** is the dominant type of modality. This is because both speakers express their highest degree of confidence on a given proposition by **epistemic certainty**. In doing so, they employ a higher number of epistemic certainty expressions. The speakers tend to stress their certainty since the main aim behind their speeches is to urge the people to take seriously the current dangerous situation. Biden and Merkel are certain that some situations will change in the upcoming weeks, that is why Biden keeps insisting that people should get vaccinated and that is why Merkel advises people to abandon all the unnecessary habits. Another reason behind using certainty is to tell the world that their governments' healthcare programmes are the best in the world. While Biden talks about opening new hospitals and vaccination sites and doubling the number of vaccines, Merkel praises the German excellent healthcare system, one of the best in the world in her opinion.

Regarding the speakers' median degree of confidence on a proposition, **epistemic probability** is employed. Even though it is used by Biden more than Merkel, both leaders are not certain about the consequences of the spread of the virus and the lives it will claim. Moreover, Biden addresses his people in a slightly more serious manner. He offers many probabilities because the nature of the people of American is different from that of the German whether in numbers and in response to the governmental announcements. In this sense, whenever Merkel uses probability expressions, she refers to the state, not to the people. For instance, she talks about the shops saying if they happen to be empty one day, they will be reloaded the next day. She also talks about the government's plans of taking all the necessary measures to stop the virus. The most important among Merkel's probabilities is that she shares with the people her honest, whole-hearted feelings and show them she truly cares. She makes the people feel that they have to join in the fight against the virus and this is their time to help the government. Merkel often addresses the people as if they were her colleagues in the Federal Government. She gives them a role in reducing the

spread of the virus, and supporting one another during this difficult time. On the other hand, Biden uses probability expressions differently, but in a straightforward way. For instance, he says that if people are not vaccinated, they run the risk of getting infected or even die. Likewise, he says that Omicron is serious, potentially deadly for unvaccinated people. Such statements would cause fear in the society.

Biden and Merkel show their lowest degree of confidence as shown by the occurrence of **epistemic possibility**. Both point out the possibility that people get the virus. Both refer to the possibility of the government and people to face the virus. Furthermore, both speakers give a sense of permission to the people so that they can celebrate the holidays, as Biden announces, but everything that can put the people at risk and cause harm to the community needs to be avoided. Merkel appears to be more polite than Biden in her choice of words. For instance, she keeps repeating the **lexical verb 'allow'**. This verb shows a sense of asking for permission and unites the government and people, and delivers a feeling of solidarity.

Concerning **deontic modality**, its use is less frequent than epistemic modality. This is due to the time and nature of the speech which emphasises certainty. This certainty focuses on behaving in the right way to limit the spread of the virus. Deontic modality is seen to be expressed by **deontic necessity** which refers to the highest degree of obligation. Both speakers list a number of obligations which are found to refer to a number of purposes. One purpose is to do the best to contain the virus. Another purpose is to stay focused and save the lives of people, not act irrationally and to be careful with the elderly. Furthermore, one another purpose is to urge the people to do more and better to support doctors and nurses.

Deontic modality is also recognised in the form **deontic advisability** which conveys the median degree of obligation of a command. In expressing their deontic advisability, Biden and Merkel urge the people to be wary of coronavirus. Both speakers stress the necessity of wearing masks and keeping a social distance. They also emphasise the importance of staying vigilant and focused. Advisability is used more by Biden than Merkel since the former relies on repetition.

Deontic modality is also expressed by **deontic possibility**. Both speakers seem to talk in terms of possibilities. They refer to the possibility of surviving this critical time with the least causalities. Both also talk about the possibilities of controlling the virus. One primary possibility is intended to urge the people to do their best and to

take a decisive action against the virus. In this sense, they show their lowest degree of obligation.

Boulomaic modality and **perception modality** are never used in both texts. As they deliver their speeches, Biden and Merkel never talks about desires, wishes or hopes. They also never talk about perceptional attitudes whether visual, auditory, or haptic. Both speakers deliver their speeches at a time of great difficulty so that there is no room for these two types of modality.

The distribution of epistemic modality employed by Biden and Merkel are given in the following table:

Table (4): The Distribution of Epistemic Modality in Both Speeches

Epistemic Modality	***Biden's Speech***	***Merkel's Speech***
Epistemic Certainty		
Modals	29	25
Lexical Verbs	4	4
Conditional Clauses	3	1
Modal Adjuncts	1	3
Epistemic Probability		
Modal Adjuncts	7	2
Conditional Clauses	4	3
Modals	3	0
Lexico-Modal Auxiliaries	2	0
Epistemic Possibility		
Modals	22	16
Conditional Clauses	5	0
Lexical Verbs	1	3
Lexico-Modal Auxiliaries	0	1
Modal Adjuncts	0	2
Others		
Verbs (need)	7	2
Total	**88**	**62**

Based upon the results in table (4), **modals** are seen to be the preponderant linguistic property compared to the others. Modals are the most frequently used structures whether in the form of epistemic certainty or epistemic possibility, to the exclusion of epistemic probability. The majority of **modal verbs** used in the text are **'will'** in epistemic certainty and **'can'** in epistemic possibility, whereas in epistemic probability, the **modal adjunct 'likely'** is found dominant. The distribution of modals in these numbers in the form of certainty and possibility expressions is due to the strenuous efforts each government makes in the fight against the virus. Such result reflects the seriousness of the situation and the danger the virus poses to people. In facing the virus, Biden and Merkel each sees her/his capabilities, political position, and economic stance as the prime example in the world. They, consequently, rely heavily on statements of certainty and possibility. The majority of these statements contain modals.

The distribution of deontic modality used in Biden and Merkel's speeches is given in the following table:

Table (5): The Distribution of Deontic Modality in Both Speeches

Deontic Modality	***Biden's Speech***	***Merkel's Speech***
Deontic Necessity		
Modals	11	11
Deontic Advisability		
Modals	10	5
Deontic Possibility		
Modals	13	10
Others		
Adverbs of Frequency	2	3
Total	**36**	**29**

According to this table, all categories of deontic modality are expressed by modals only. **'Must'** is prevalent in necessity, **'should'** in advisability, and **'can'** in possibility. In the statements that express necessity, both speakers refer to what they have to do as a government and as individuals. Advisability is also used from time to time to illustrate a median degree of obligation i.e. what people should do to void the

severe infection of the virus and to be safe. Both speakers utter possibility statements along with a sense of command to urge the people to do their best. This is a time of solidarity and compassion, as both speakers announce.

5. Conclusions

Upon the analysis of modality available in both texts, we have arrived at a number of significant conclusions:

1. Modality is found in both texts in two forms only: epistemic and deontic modality.
2. Boulomaic and perception modality constructions are absent from both texts as they do not seem to be needed at such serious and challenging times. There is no place for wishes, hopes and desires or visual, auditory and haptic aspects.
3. Both speakers use a number of expressions with one or more modal units in one sentence, especially in their certainty expressions which show their political positions, power and the advanced healthcare systems.
4. Biden is recognised to utilise more straightforward expressions with a sense of fearful certainty, paying less attention to peoples' feelings in comparison with Merkel who is seen as being more polite. She chooses her words in a way that indicates her support and care for her people.
5. Among the epistemic categories, certainty is the most prevalent one in the two texts. The speakers employ a considerable number of certainty expressions to show their expert knowledge of the coronavirus pandemic and how to deal with it.
6. Deontic necessity is the dominant category of deontic modality in the two texts. Both speakers resort to necessity expressions to give a sense of command in that the community needs to follow regulations in order to be on the safe side.

References

Baker, P. & Ellece, S. (2011). *Key Terms in Discourse Analysis*. London & New York: Continuum.

Brown, G. & Yule, G. (1983). *Discourse Analysis*. Cambridge: Cambridge University Press.

Bybee, J., Perkins, R. & Pagliuca, W. (1994). *The Evolution of Grammar: Tense, Aspect and Modality in the Languages of the World.* Chicago: The University of Chicago Press.

Crystal, D. (2008). *A Dictionary of Linguistics and Phonetics.* (6th Ed.). Oxford: Blackwell Publishing.

Declerck, R. (2011). The Definition of Modality. In Patard, A. & Brisard, F. (eds.). *Cognitive Approaches to Tense, Aspect, and Epistemic Modality*. Amsterdam: John Benjamins Publishing Company.

Gavins, J. (2007). *Text World Theory: An Introduction*. Edinburgh: Edinburgh University Press.

Gee, J. P. (2011). *An Introduction to Discourse Analysis: Theory and Method*. (3rd Ed.). London & New York: Routledge.

Goddard, A. & Carey, N. (2017). *Discourse: The Basics.* London & New York: Routledge.

Halliday, M.A.K. (2014). *Halliday's Introduction to Functional Grammar*. (4th Ed.). London & New York: Routledge.

Johnstone, B. (2008). *Discourse Analysis*. (2nd Ed.). Oxford: Blackwell Publishing.

Jørgensen, M. & Phillips, L. (2002). *Discourse Analysis as Theory and Method*. London: Sage Publications Ltd.

Kearns, K. (2011). *Semantics*. (2nd Ed.). London & New York: Palgrave Macmillan.

Lyons, John. (1977). *Semantics: Volume 2*. London & New York: Cambridge University Press.

Nuyts, Jan. (2001). *Epistemic Modality, Language and Conceptualization: A Cognitive-Pragmatic Perspective*. Amsterdam: John Benjamins Publishing Company.

_____. (2006). Modality: Overview and Linguistic Issue. In Frawley, W. (ed.). *The Expression of Modality*. Berlin & New York: Mouton de Gruyter.

Palmer, F. R. (1986). *Mood and Modality*. Cambridge: Cambridge University Press.

_____. (2001). *Mood and Modality*. (2nd Ed.). Cambridge: Cambridge University Press.

_____. (2013). *Modality and the English Modals.* (2nd Ed.). London & New York: Routledge.

Schiffrin, D. (1994). *Approaches to Discourse*. Oxford & Cambridge: Blackwell.

Simpson, P. (1990). *Language, Ideology and Point of View*. London & New York: Routledge.

Stubbs, M. (1983). *Discourse Analysis: The Sociolinguistic Analysis of Natural Language*. Chicago: University of Chicago Press.

Suhadi, J. (2011). Epistemic Modality and Deontic Modality: Two Sides of a Coin. *JULISA*. *11*(2), 156-179. https://doi.org/10.31227/osf.io/wv7zx

Van der Auwera, J. & Plungain, V. A. (1998). Modality's Semantic Map. *Linguistic Typology 2*. *2*(1), 79-124. https://doi.org/10.1515/lity.1998.2.1.79

Wasserman, N. (2012). *Most Probably: Epistemic Modality in Old Babylonian.* USA: Eisenbrauns Inc.