The Semantics of Embosi Modal Auxiliaries

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Abstract

This paper deals with the semantic analysis of modality in Embosi, a Bantu language spoken in the Republic of Congo. The study reveals that Embosi attests four pure modals: the modal *kà*, which expresses the necessity; the modal *kòmi,* which describes the obligation; the modal *onàmi*, which depicts the condition; and the modal *pènà* is used for probability. In addition, the work also shows that Embosi has five marginal modals: *ikòngàà* to indicate futurity, *ipérà* to describe capacity, *ipúrà* to mean desire, *itáá* to prohibit, and *iwénà* to express the progressive aspect. The analysis semantically denotes that Embosi expresses the epistemic modality with the modals *kà, ipèrà,* and *pènà* and the deontic modality with the modals *kòmi, ipèrà, itáá,* and *onàmi*. The study also proves that Embosi attests dynamic modality with the modals *ipèrà* and *iwénà,* and bouletic modality with the modals *ikòngàà* and *ipúrà.* The work also demonstrates tense, aspect and modality interaction in Embosi. Otherwise, the research shows the overlapping of the semi-modal *ipérà* between epistemic, deontic, and dynamic modalities. Finally, the study highlights the interaction of Embosi modals with the negation by the use of the primary auxiliaries **idià 'have'** and **idzà 'be'**, associated with the negation morpheme *kò* 'not'.

Keywords: Embosi, Semantics, Modal, Epistemic modality, Deontic modality, Dynamic modality, Bouletic modality

1. Introduction

The study of modals is central to linguistic research since they are used as key tools for the expression of necessity, obligation, probability, capacity, and condition. Embosi is a Bantu language spoken in the northern part of the Republic of Congo. Guthrie (1948) classifies it as a C25 language. This work deals with the semantic analysis of Embosi modals and aims at providing a context-independent account of modal expressions and contributing to the documentation of that under-described language. To achieve these purposes, the analysis addresses the following research questions: 1) What is the typology of Embosi modals? 2) What are the semantic features of Embosi modality? 3) Do Embosi modals overlap within

semantic features? 4) How do Embosi modals interact with other grammatical categories? The analysis provides background information with an inventory of Embosi modals, their semantic approach and their interactions with other grammatical properties. The data collection for this analysis involved fieldwork, mainly through observation, participant observation and key informants interviewing.

2. Background Information

This section provides an overview of the Embosi language before tackling modals as semantic categories. It also deals with the typology of the Embosi modality.

2.1 Embosi Language

Spoken in the north of the Republic of Congo, specifically in the departments of Nkeni-Alima and Cuvette, Embosi is a language classified by Guthrie (1948) in the group C20 of Bantu languages. Kiba Ngapoula (2023:164) claims that "it is worthwhile specifying that Embosi is simultaneously the name of the group C20 and the name of one of its languages classified as C25 and distinguished by Embosi strictly speaking." It resorts from this assertion that based on Guthrie's classification, Embosi C25 is a language different from Embosi C20 group that has seven dialects: Mboko C21, Akwa C22, Ngaré C23, Koyo C24, Embosi strictly speaking C25, Likwala C26 and Likuba C27. However, there is no agreement among linguists about the distinction between Embosi dialects and languages. Ndongo Ibara (2012, 2018), Ngapoula (2020), and Oba (2025) are among those who think that a new classification should be suggested (Ngapoula 2025:102). This research work is based on the Embosi C25 Oléé subdialect, spoken in the Nkeni-Alima department, particularly in the subprefectures of Abala, Ollombo and Ongogni. Besides, this work focuses on modality, which is going to be examined in the following section.

2.2 Modality as a Semantic Category

Modality is widely recognised in linguistics as a central semantic category that conveys a speaker's attitude toward the proposition, ranging from possibility and necessity to obligation and volition. Lyons (1977:452) defines modality as "the speaker's opinion or attitude towards the proposition that the sentence expresses." In addition, Palmer (2001:1–2) emphasises that modality represents "the grammaticalisation of speakers' attitudes and opinions", encompassing notions such as certainty, probability, permission, and obligation. It comes out of both assertions that, as a semantic category, modality functions as a key interface between the objective content of propositions and the subjective orientation of speakers. Within the semantic domain of modality, linguists mainly distinguish between epistemic, deontic, dynamic and bouletic modalities, each of which encodes different kinds of meaning.

Beyond this classification, modality enables speakers to differentiate commitment, impose social norms, or express subjectivity. Bybee, Perkins, and Pagliuca (1994:179–182) argue that modality belongs to a broader cross-linguistic category of "grammatical markers of speaker attitude", which serve not only to represent reality but also to negotiate it in an interaction. Similarly, Traugott (1989:35) asserts that modality is inherently tied to processes of

subjectification, in which linguistic forms enable to increase degrees of speaker involvement. Thus, let us examine the typology of modals in the Embosi language.

2.3 Embosi Modals Typology

A modal verb is a type of auxiliary verb that expresses meanings related to possibility, necessity, obligation, permission, ability, or prediction, rather than describing an action itself. Embosi attests two types of modals: pure modals and semi or marginal modals.

2.3.1 Pure Modals

A pure modal is a type of modal auxiliary verb that shows all the typical properties of modals, without behaving partly like a main verb. In Embosi, we distinguish four pure modals: *kà*, *kòmi*, *onòmi*, and *pènà*. Indeed, the modal *kà* 'must' expresses necessity, the modal *kòmi* 'must' describes an obligation, while the modal *onòmi* 'unless' is used for the condition, and finally, the pure modal *pènà* 'may' expresses probability. Embosi also has semi-modals.

2.3.2 Marginal Modals

A marginal modal, also called a semi-modal, is a verb that behaves partly like a pure modal auxiliary and partly like a main verb. They are on the margin between pure modals and ordinary verbs. The Embosi language has five marginal modals: *ikòngàà*, *ipèrà*, *ipúrà*, *itàà*, and *iwénà*.

Indeed, *ikòngàà* 'will', with its synonyms *ilòngàà*, *ibòndàà*, and *isià*, is used as a modal to express the future time and as an ordinary verb to mean 'to wait'. The semi-modal *ipèrà* 'can' expresses capacity as a modal and means 'to succeed' as a lexical verb. In addition, the marginal modal *ipúrà* 'like' expresses the desire; taken as an ordinary verb, the same modal means 'to seek'. Furthermore, the semi-modal *itáá* 'must not' describes a prohibition when it is used as a modal and 'to observe' as a main verb. Finally, Embosi has the semi-modal *iwénà* 'progressive aspect', which is used as a modal for continuous actions and means 'to manage' when it is considered as an ordinary verb. Let us now examine, in the following lines, the semantics of Embosi modals.

3. The Semantic Analysis of Embosi Modals

The examination of the context-independent aspect of meaning of the Embosi modals, the way this meaning is structured and expressed provides four semantic features: the epistemic, deontic, dynamic, and bouletic modalities.

3.1 Epistemic Modality

Epistemic modality refers to the use of modal expressions to indicate the speaker's degree of commitment to the truth of a proposition, thus reflecting judgements about knowledge, belief, and inference. It operates within the domain of truth evaluation and evidential position (Palmer, 2001). Scholars such as Lyons (1977) have emphasised that epistemic modality is subjective, since it encodes the speaker's assessment of likelihood, possibility, or necessity. Thus, epistemic modality is central in the understanding of how language encodes reasoning,

probability, and speaker position. In Embosi, epistemic modality is expressed by three modals: *kà*, *ipèrà*, and *pènà*.

3.1.1 Kà

The modal auxiliary *kà* 'must' is used to express necessity, which does not impose obligation. Let us illustrate with the sentence below:

(1) Oko *kà* àdzúàndáláèkòò.

　　Oko must go house of evening.

　　'Oko must go home in the evening.'

The use of the modal *kà* 'must' in (1) is to express an epistemic necessity, rather than an obligation. By the use of *kà* 'must', the speaker expresses a high degree of epistemic commitment. Accordingly, Lyons (1977) thinks that this kind of modality highlights the subjective position of the addresser, as the necessity or the duty derived from individual reasoning rather than objective fact or an obligation to perform a specific action. Thus, epistemic duty constitutes one of the main categories of modals in semantics, since it encodes inferential judgements and situates utterances within a framework of certainty and knowledge. Let us examine the following instance:

(2) Bini *kà* lèmeïndzàlàwà

　　You must complain hunger to him

　　'You have to express him hunger.'

In (2), the use of the modal *kà* expresses an epistemic duty or a necessity with hesitation. The speaker asks the addressees to perform an action without being sure whether it is a beneficial idea. The epistemic modality is also expressed by the modal *ipèrà* in Embosi.

3.1.2 Ipèrà

The expression of probability in epistemic modality reflects the speaker's assessment of the likelihood that a given proposition is true, based on evidence, inference, or general knowledge. The Embosi modal *ipèrà* 'can/may' can be used to express probability. It denotes certainty or probability markers, which encode, according to Palmer (2001:24-25), a weaker epistemic position, situating the proposition within a spectrum of plausibility rather than inevitability. The following sentence highlights this argumentation:

(3) Ondongo *àpèrà* oyààlàmwási yàwà

　　Ondongo may come with wife of him.

　　'Ondongo may come with his wife.'

In fact, the use of the semi-modal *ipèrà* in (3) illustrates that the speaker is not sure that Ondongo will come with his wife, but it is a possibility that cannot be taken as a certainty. In

addition, epistemic probability is also expressed in Embosi by the pure modal *p àn à*, which is distinct from the marginal modal *ip èr à* in its high degree of uncertainty.

3.1.3 P àn à

In Embosi, the pure modal *p àn à* 'may' functions as a marker of epistemic possibility, thereby expressing a high degree of probability. Let us illustrate with the following example:

(4) N èàn è *p àn à* ab úr àp áá

    Mummy may return today.

    'Mummy may come back today.'

Indeed, the use of the modal *p àn à* 'may' in (4) indicates that the proposition is compatible with the speaker's knowledge but does not commit to its truth. The speaker believes that it is a possibility for mummy to come today, but not an absolute truth. As Lyons (1977, pp. 793–795) notes, probability in epistemic modality is inherently subjective, since it depends on the speaker's reasoning rather than absolute facts. Kratzer's (1991, pp. 640–642) formalises this by treating epistemic probability as truth in at least one epistemically accessible world, in contrast with necessity, which requires truth across all such worlds.

Thus, the expression of probability in epistemic modality provides a crucial mechanism for encoding uncertainty, inference, and gradience in truth evaluation, reflecting how speakers navigate knowledge and belief in communication. Therefore, the epistemic modality is indispensable for understanding how language encodes reasoning, probability, and evidential position in both everyday communication and formal semantics. Otherwise, in Embosi, modals also express the deontic modality.

3.2 Deontic Modality

Deontic modality is concerned with the expression of obligation, permission, and necessity in relation to norms, rules, or authority. According to Palmer (2001:9), "deontic modality is concerned with necessity and possibility in terms of freedom to act, permission, and duty." It encodes how speakers use language to regulate actions. Similarly, Lyons (1977:823) emphasises that "deontic modality refers to the necessity or possibility of acts performed by morally responsible agents". This amounts to saying that modal categories are highlighted by the ethical and social dimensions. In Embosi, deontic modality is expressed by the modals *k àmi, ip èr à, it áá,* and *on àmi.*

3.2.1 K àmi

The expression of obligation with modals constitutes a core function of deontic modality, signalling that an action is required by rules, norms, or authority. The pure modal *k àmi* 'must' is used in Embosi to convey different degrees of obligation. In this perspective, Palmer (2001:11) defines obligation as "a modal notion indicating that an agent is required to perform a certain action according to rules, laws, or social expectations." This means that the agent is obliged to perform an action, an obligation guided by rules or laws or even expectations. Let us consider the sentence below to prove this argumentation:

(5) Adua *kòmi* abéri ngàmúndàmàpú.

Adua must bring me lamp of new.

'Adua must bring me a new lamp.'

In fact, the use of the modal *kòmi* 'must' in (5) encodes a requirement enforced by the speaker's expectation. Accordingly, Lyons (1977:824) claims that "deontic obligation expresses necessity with respect to actions performed by agents under moral, social, or legal constraints." Indeed, the author means that the expression of obligation through modals functions as a linguistic mechanism for enforcing rules, regulating behaviour, and encoding authority. Moreover, deontic modality is also expressed by the marginal modal *ipéra* to encode the allowance.

3.2.2 Ipèrà

The modal ipèrà 'can/may' may be used in Embosi to express the permission. Its expression with modals is a central function of deontic modality, pointing out what actions are allowed within a given normative, social, or institutional context. Within the same approach, Palmer (2001:12) claims that "permission is a modal notion indicating what it is permitted for an agent to do, often contingent on rules, norms, or authority." This means that the use of a modal such as *ipèrà* 'may' in Embosi provides the allowance for an action to be performed. This argumentation is illustrated by the following example:

(6) Ngualomi yàno *apèrà* okúey àndá.

Uncle of you may get in house.

'Your uncle may get in the house.'

From the above sentence, the modal ipéra *'may'* provides the speaker the power to permit an action. In (6), the speaker allows the addressee's uncle to get into the house. This is the reason why Lyons (1977:825) claims that deontic permission involves the speaker's recognition of constraints on action, stating that "the modal expresses that an action is allowed within the bounds of social or moral rules." This means that the permission as expressed through the modal *ipéra* 'may' in Embosi constitutes a key mechanism for regulating action and encoding social or legal authority in language. Furthermore, the modal itáá in Embosi addresses deontic modality by expressing prohibition.

3.2.3 Itáá

The expression of prohibition with modals represents a fundamental aspect of deontic modality, specifying that some actions are not allowed within a normative, social, or legal framework. The marginal modal *itáá* 'must not' is used to encode prohibitive meaning, signalling restrictions on agents' actions. In this perspective, Palmer (2001:13) explains that "prohibition is the negative counterpart of obligation, indicating that an action is forbidden or barred by rules or authority." This amounts to saying that the use of the modal *itáá* 'must not' in Embosi indicates that the action to perform is prohibited by either an authority or certain rules. Let us consider the following example:

(7) *Otáá otáng àkómbólàngà*

Must not pronounce name of me.

'You must not mention my name.'

From (7), the use of the semi-modal *itáá* 'must not' communicates a strong normative restriction based on the authority with the speaker forbidding the addressee to mention his name. Lyons (1977: 826) further emphasises that deontic prohibition expresses the limits of permissible behavior, stating that "the modal indicates that the action is disallowed within the relevant social or moral context." Thus, the expression of prohibition through the modal *itáá* 'must not' in Embosi is essential for regulating behaviour, enforcing norms, and encoding social authority in linguistic communication. The last modal expressing deontic modality in Embosi is *onàmi*, encoding the condition.

3.2.4 Onàmi

Deontic modality is expressed in Embosi with the pure modal *onàmi* 'unless' to encode condition. Indeed, the expression of condition with *onàmi* 'unless' highlights the interaction between modality and conditional constructions. As Palmer (2001:202) observes, "conditionals provide a natural environment for the use of modals, since they relate necessity or possibility to hypothetical situations." This quotation means that modals are relevant in the expression of conditions. Let us consider the following sentence:

(8) *Onàmi Ibara apèèmbòngò yàngà páá, wàngòli kòngà ipignàwàlèndàà*

Unless Ibara give money of me today, or else I wrest him bicycle.

'Unless Ibara gives my money today, or else I wrest his bicycle.'

In fact, the modal *onàmi* 'unless' is used in (8) to express a deontic condition that Ibara has to fulfil or the action of wresting his bike will be performed. Thus, the condition expression with modals illustrates how language encodes contingency, inference, and hypothetical reasoning, providing a bridge between modality and conditional semantics. However, Embosi modals also encode the dynamic modality.

3.3 Dynamic Modality

Dynamic modality is primarily concerned with the expression of an agent's inherent properties, such as ability, or capacity, rather than external norms or evaluative judgements. According to Palmer (2001:9), it arises from "the subject's own potentialities" rather than obligations imposed by authority. Similarly, Van der Auwera and Plungian (1998:84–85) claim that dynamic modality reflects an agent-centred orientation, and focuses on "the internal conditions of the participant" in relation to an action. Thus, in Embosi, dynamic modality plays a crucial role in linguistic modality by capturing a speaker's encoding of personal capacity. This modality is expressed by the Embosi modals *ipèrà* and *iwénà*.

3.3.1 Ipèrà

The expression of capacity through modals constitutes the central function of dynamic modality, since it encodes the inherent ability or potential of an agent to perform an action. Accordingly, Coates (1983:64–66) claims that dynamic modality "attributes an intrinsic quality to the subject." The semi-modal **ipèrà** 'can' is the most common linguistic marker of capacity in Embosi, as illustrated in the sentences below.

(9) Oba *apèrà* obin àmɔ́ndɔ́.

    Oba can dance mondo.

    'Oba can dance mondo.' (a traditional dance).

It results from (9) that the use of the marginal modal **ipérà** 'can' is to express the meaning that derives from the subject's internal capacity. It tackles the ability of Oba to perform the mondo dance. Thus, the expression of capacity with the modal **ipérà** 'can' offers an explanation of how languages encode the internal resources and competences of participants. However, the modal *iwénà*, which encodes the progressive aspect, also expresses the dynamic modality.

3.3.2 Iwénà

The progressive aspect is first of all used to express an event or action which is happening at a period of time, establishing its ongoing or incomplete nature rather than its completion. According to Comrie (1976:24–25), the progressive aspect is "the combination of imperfective aspect with dynamic situation types," which means that the event is situated in progress at a reference point. In Embosi, the progressive aspect is expressed by the use of the semi-modal *iwena*. Let us consider the following sentences:

(10) Kua *awénà* owɔ́mbɔ̀lèpànguɛ́.

    Kua progr clean compound.

    'Koua is cleaning the compound.'

The use of the modal iwénà in (10) describes the continuous aspect of the action; therefore, the progressive contributes to the aspectual system of Embosi. Thus, the progressive aspect functions as a crucial grammatical resource for highlighting event incompletion, temporariness, and bounded dynamism within discourse. Finally, Embosi modals also encode the bouletic modality.

3.4 Bouletic Modality

Bouletic modality, also called volitive modality, encodes meanings related to desires and wishes. It captures the speaker's or subject's preferences and goals toward a state of affairs. As Portner (2009:149–150) observes, bouletic modality is semantically grounded in "the ordering of possible worlds according to the subject's desires." In addition, Nuyts (2001, p. 23) asserts that bouletic modality differs from deontic modality in that it does not impose external obligations but instead reflects internal motivational states of an individual.

Therefore, bouletic modality is an important semantic category, which enables us to analyse how language encodes human intention, aspiration, and volition. In Embosi, bouletic modality is encoded by the modals *ikòngàà* and *ipúrà*.

3.4.1 Ikòngàà

The expression of the future in Embosi is tied to the use of modal verbs, particularly *ikòngàà, ilòngàà, ibòndàà* **and** *isià* 'will' which function as primary markers of futurity. All those modals are synonymous, and their use is dialect dependent. Unlike tense, which locates an event on the timeline, the future in Embosi is encoded through modality, reflecting both temporal reference and the speaker's attitude toward the eventuality. The sentences below highlight this argumentation.

(11a) Morokura *àkòngàà* odzúàpórό.

   Morokura will go Europe.

   'Morokoura will go to Europe.'

(11b) Ngà *ilòngàà* otόngàndáì yà ènè.

   Me will build house of big.

   'I will build a big house.'

(11c) Bisi *lèbòndàà* obόm àmbùs àibiéngi.

   We will kill antelope tomorrow.

   'We will kill an antelope tomorrow.'

(11d) Ollombo *asià* okáláàbòwà ènè.

   Ollombo will become village big.

   'Olllombo will become a city.'

Indeed, the modals *ikòngàà* 'will' in (11a) and *isià* 'will' in (11d) express not only futurity but also a prediction based on the present knowledge. In (11b) and (11c), however, the modals *ilòngàà* 'will' and *ibòndàà* 'will' carry both the futurity and a kind of promise or obligation. In this perspective, Bybee, Perkins, and Pagliuca (1994:240–241) highlight that the expressions of futurity often emerge from modal sources such as volition and obligation, reflecting a grammaticalisation pathway in which markers of desire or necessity evolve into future auxiliaries. Let us now examine the modal *ipúrà*, which expresses desire.

3.4.2 Ipúrà

The expression of desire encodes wishes, wants, and preferences regarding potential states of affairs. In Embosi, desire is commonly marked through the modal auxiliaries *ipúrà* or *iyéngà*. Both auxiliaries amount to the same thing, and they are used depending on the dialect. Let us consider the following examples:

(12a) Ngà *ipúrà* osómbà òtá

    I desire buy rifle.

    'I would like to buy a rifle.'

(12b) Mbosa *ayéngà* otèèn èl àn ò.

    Mbosa desires meet with you

    'Mbosa would like to meet you.'

The modals *ipúrà* 'like' in (12a) and *iyéngà* 'like' in (12b) are used to express the desire or the willingness. Thus, the expression of desire with modals illustrates how language encodes subjective volition and preference, contributing to a broader understanding of modality as a semantic category. Otherwise, in Embosi, a modal may overlap among different modalities.

4. Semantic Overlaps

In Embosi, the marginal modal *ipèrà* 'can/may' overlaps among epistemic, deontic and dynamic modalities. Following Kratzer's (1991) framework on modality, the semi-modal *ipèrà* does not express fixed meanings. Its interpretation depends on either the facts we consider relevant (modal base) or the criteria to evaluate different possibilities depending on the context in which it occurs. Let us consider the sentences below:

(3) Ondongo *apèrà* oyààl àmwási yàwà

    Ondongo may come with wife of him

    'Ondongo may come with his wife.' (Low degree of probability, epistemic modality)

(6) Ngualomi yànò *apèrà* okúey àndái.

    Uncle of you may get in house.

    'Your uncle may get in the house.' (Permission, deontic modality)

(9) Oba *apèrà* obin àmónd ó.

    Oba can dance mondo.

    'Oba can dance mondo.' (a traditional dance). (Ability, dynamic modality)

It comes out from the above sentences that the modal *ipèrà* 'can/may', in (3), expresses a low degree of probability, encoding the epistemic modality. In (6), however, it describes the allowance, therefore the deontic modality, while in (9), it depicts the ability, which is the expression of dynamic modality.

5. Interactions With Other Grammatical Categories

The study of modality cannot be isolated from its interactions with other grammatical categories, since the interpretation and distribution of modals are shaped by their syntactic and semantic environment. Modals are semantically flexible items that express necessity, possibility, obligation, or permission, yet these meanings are sensitive to tense, aspect, and negation. Understanding these interactions is crucial for developing a comprehensive account of modality in Embosi.

5.1 Modality and Tense-Aspect Distinction

One of the most interactions with modality is the connection between modals, tense and aspect. These differences illustrate that modality is tightly bound to temporal structure, with aspect and tense. Modals in Embosi interact with the tense notions of past, present, and future. Let us consider the example of the modal *ipérà* 'can/may' with the following sentences:

(13a) Ngala *adzàà apérà* oléà olómi.

       Ngala be ed can cry husband.

       'Ngala could cry for her husband.'

(13b) Ngala *apérà* oléà olómi.

       Ngala can cry husband.

       'Ngala can cry for her husband.'

(13c) Ngala *àkòngàà opérà* oléà olómi.

       Ngala will can cry husband.

       'Ngala will be able to cry for her husband.'

In fact, the modal *ipèrà* 'can' expresses the past in (13a), where it is preceded by the primary auxiliary verb *idzàà* 'be' in the past. In (13b), though, the modal *ipèrà* 'can' does not require any other auxiliary to express the present tense. However, in Embosi, the future modality is formed by combining the target modal with a modal that expresses futurity (*ikòngàà, ilòngàà, ibòndàà* **and** *isià*). This is illustrated in (13c). Otherwise, Embosi modals attest progressive aspect. Let us consider the same modal *ipèra*.

(14a) Ngala *adzàà awénà* oléa olómi.

       Ngala be ed progr cry husband.

       'Ngala was crying for husband.'

(14b) Ngala *adii awénà* oléa olómi.

       Ngala be ed progr cry husband.

       'Ngala has been crying for husband.4

(14c) Ngala *awénà* oléa olómi.

Ngala progr cry husband.

'Ngala is crying for husband.'

(14d) Mo ikáng àdingi, Ngala *akòngàà owénà* oléa olómi.

At time that, Ngala will progr cry husband.

'At that time, Ngala will be crying for husband.'

Indeed, in (14a), the progressive aspect is expressed in the past with the auxiliary *idzàà* 'be' to form the simple past in order to express a completed action of Ngala that occurred at a specific time in the past. In (14b) however, with the auxiliary idià 'have', the continuous action is in the recent past to form the present perfect continuous in order to highlight that Ngala's action of crying for her husband has just happened in a continuous way and may still matter.

In addition, in (14c), the continuous action is in the present, and any other auxiliary is not required, apart from the progressive modal *iwènà*, to form the present continuous. Finally, in (14d), the future modal *ikòngàà* 'will' precedes the progressive modal to express the progressive aspect in the future. Progressive future then describes Ngala's action of crying for her husband that will be happening at a particular moment in the future. Additionally, let us examine the connection, in Embosi, between modality and negation in the following section.

5.2 Modality and Negation

The interaction between modals and negation has been a central issue in the study of modality because the relative scope of these two operators yields different interpretations. These patterns highlight the importance of syntax-semantics mapping in explaining modal-negation interactions. However, the Embosi language attests the regular and irregular connection between the modals and negation.

5.2.1 Regular Interaction of Modality and Negation

Negation with Embosi modals is expressed by the use of the auxiliary *idià* 'have' and the negation morpheme *ko* or *ka* 'not' in the present and future. It is also formed with the auxiliary *idzàà* 'be' in the past. The position of the auxiliary in the sentence depends on the modal verb; it can be pre modal, post modal or both, while the negation morpheme is generally placed at the end of the sentence. Let us consider the following examples with the modals *ikòngàà, ipèrà, ipúrà* and *iwénà,* that require a pre modal position of the auxiliary *idià* or *idzà.*

(15a) Morokura ***adi*** *okòngàà* odzúà póró***kà***

Morokura has will go Europe not.

'Morokoura will not go to Europe.'

(15b) Kiba *adi opèrà* odúàlèndààkà

Kiba has can drive bicycle not.

'Kiba cannot drive the bicycle.'

(15c) Ngà*idi opúrà* osómbà òtákà

I have desire buy rifle not.

'I would not like to buy a rifle.'

(15d) Bà*adzàà* baw*énà* odzúàndáíkà

They were-prog go house not.

'They were not going home.'

It results from the above illustrations that the auxiliary *idià* 'have' and the morpheme ko 'not' are used in (15a) to express a negative action in the future, in (15b) and (15c) to depict negation in the present. In addition, the auxiliary *idzàà* 'be' and the morpheme ko 'not' are used in (15d), with the progressive modal *iwena*, to describe the negation in the past. However, the modals *ka* 'must' and *komi*, 'must' are used in the post modal position. The examples below illustrate this argumentation.

(16a) Oko *kà adii* ndá là èkòòodzúàkà

Oko must has house of evening go not.

'Oko should not go home in the evening.'

(16b) Adua *kómi adii* ngàmúndàmàpúobéra kà

Adua must has me lamp of new bring not.

'Adua should not bring me a new lamp.'

Indeed, (16a) and (16b) highlight that the auxiliary *idià* 'have' is placed after the modal while, the position of the negation morpheme is invariable. However, what is interesting is that negation of the modals *kà* 'must' and *kómi*, 'must' impacts the semantics of the sentence.

Indeed, the modal *kà* is used to express necessity, whereas the modal *komi* is used for obligation, both meaning 'must'. But with the use of negation, *kà* in (16a) does not express a negative necessity but rather a probability or expectation. Similarly, in (16b), *kómi* with negation does not mean prohibition but rather expectation. So, in both negative sentences, the meaning of *kà* and *kómi* is no longer 'must', but rather 'should'. Otherwise, the negation of the Embosi modal *pènà* 'may' is formed with the auxiliary, which may be pre or post modal, without affecting the semantics of the sentence. Let us consider the sentence below:

(17a) Nèènè **adi** pènà abúràpàà**kà**.

    Mummy has may return today not.

    'Mummy may not come back today.'

(17b) Nèènè **pènàadi** abúràpàà**kò**.

    Mummy may has return today ko.

    'Mummy may not come back today.'

In fact, even if the auxiliary *idià* 'have' precedes the modal in (17a), or follows the same auxiliary in (17b), the meaning of the sentence does not change. However, there are some particular cases in Embosi where the negation with modals is not formed by the combination of the auxiliary *idià* or *idzàà* plus the negation morpheme ko.

5.2.2 Irregular Interaction of Modality and Negation

The connection of some modals and negation in Embosi is subject of exception; this is the case with the modals *itáá* 'must not' and *onàmi* 'unless'. The modal *itáá*, which means prohibition, is already a negative obligation. It does not require another negative marker any more. However, *onàmi* does not form its negation with the auxiliary *idià* 'have' or *idzàà* 'be' and the negation morpheme *kò* 'not', but constructs its negation with the verb *isúà* 'to stop', keeping the same negation morpheme at the end of the sentence. Let us consider the following examples:

(18a) Abandza, *otáá* okárà èbèèné yingi.

    Abandza, must not touch pot that.

    'Abandza, you must not touch this pot.'

(18b) Ibara *onàmi* **asúú** opèèmbòngò yàngàpáá**kò**, ngàipignàwàlèndàà.

    Ibara unless stop give money of me today not, I wrest him bicycle.

    'Unless Ibara does not give my money today, I wrest his bicycle.'

Indeed, in (18a), the modal *kà* already carries the negative properties and therefore does not need any other negative marker because it negates the sentence in which it occurs. In (18b), however, the negation is exceptionally formed with the verb *isúà* 'stop', at the place of a primary auxiliary, associated with the negation morpheme *kò* 'not'.

6. Conclusion

The analysis has revealed that Embosi modality is made up of four pure modals and five marginal modals. As pure modals, Embosi has the modal *kà* 'must, expressing the necessity, the modal *kómi* 'must' meaning obligation; the modal *onàmi* 'unless' to describe a condition; and the modal *pènà* 'may', to depict probability. Regarding marginal modals, the language includes *ikòngàà* 'will' to express futurity, *ipèrà* 'can' for capacity, *ipúrà* 'like' to depict the desire, *itáá* 'must not' for prohibition and *iwénà* 'ing form' to express the progressive aspect.

The work has shown that semantically, Embosi attests the epistemic modality with the modals *k à, ip èr à,* and *p èn à* and the deontic modality with the modals *k ámi, ip èr à, it áá,* and *on àmi.* The study has also proved that Embosi expresses dynamic modality with the modals *ip èr à* and *iw én à,* and bouletic modality with the modals *ik òng àà* and *ip úr à.* In addition, the work has proved that Embosi modals interact with the tense notions of past, present, and future as well as the progressive aspect. It has also revealed that the semi-modal *ip èr à* overlaps between epistemic, deontic, and dynamic modalities.

Finally, the analysis has demonstrated that the connection between Embosi modals with the negation may be regular with the use of primary auxiliaries *idi à* 'have' and *id àz à* 'be', which are placed in a pre or post modal position, associated with the negation morpheme *k ò* 'not'. This interaction may also be irregular with the modal *it áá,* of which the negation is embedded in, and the modal *on àmi* which requires the use of the verb *is úà* 'stop' associated with the morpheme *k ò.* However, conducting a contrastive analysis of the modality with other Bantu languages, such as Lingala, is crucial for establishing a cross-linguistic typology of modality. Since language is always situated in a context, future research works could tackle the pragmatic uses of modals to provide a complete view of Embosi modality in a communication act.

References

Bybee, J., Perkins, R., & Pagliuca, W. (1994). *The evolution of grammar: Tense, aspect, and modality in the languages of the world.* Chicago: University of Chicago Press.

Coates, J. (1983). *The semantics of the modal auxiliaries.* London: Croom Helm.

Comrie, B. (1976). *Aspect: An introduction to the study of verbal aspect and related problems.* Cambridge: Cambridge University Press.

Guthrie, M. (1948). *The Bantu Languages of Western Equatorial Africa.* Oxford: Oxford University Press.

Huddleston, R., & Pullum, G. K. (2002). The Cambridge grammar of the English language. Cambridge: Cambridge University Press. https://doi.org/10.1017/9781316423530

Kratzer, A. (1991). Modality. In A. von Stechow, & D. Wunderlich (Eds.), *Semantics: An International Handbook of Contemporary Research* (pp. 639-650). Berlin: de Gruyter. https://doi.org/10.1515/9783110126969.7.639

Lyons, J. (1977). *Semantics* (Vol. 2). Cambridge: Cambridge University Press.

Ndongo Ibara, Y. P. (2012). *Embosi-English Dictionary.* Frankfurt: Peter Lang.

Ndongo Ibara, Y. P. (2018). Problématique de la Terminologie et de la Classification des Langues Bantoues: Cas du Koyo et d'Embosi du Groupe C20. In *Humanités Gabonaises* (pp. 7-32). Éditions Ntsame.

Ngapoula, K. (2020). Semantic and Pragmatic Analysis of Definiteness and Indefiniteness in English and Embosi. *Ph.D. Thesis,* Marien Ngouabi University.

Ngapoula, K. (2023). Embosi Definiteness: A Pragmatic Approach. *Open Journal of Modern Linguistics*, *13*, 163-173. https://doi.org/10.4236/ojml.2023.131010

Ngapoula, K. (2025). Embosi Possessives: A Pragmatic Account. *Open Journal of Modern Linguistics*, *15,* 101-116. https://doi.org/10.4236/ojml.2025.151008

Nuyts, J. (2001). *Epistemic modality, language, and conceptualization: A cognitive-pragmatic perspective*. Philadelphia: John Benjamins. https://doi.org/10.1075/hcp.5

Oba, O. C. (2024). Dialectal Variations among Embosi Varieties: A Case Study of Akwa C22, Likwala C26 and Tohu. *Ph.D. Thesis*, Marien Ngouabi University.

Palmer, F. R. (2001). *Mood and Modality* (2nd ed.). Cambridge: Cambridge University Press. https://doi.org/10.1017/CBO9781139167178

Portner, P. (2009). *Modality*. Oxford: Oxford University Press. https://doi.org/10.1093/oso/9780199292424.001.0001

Traugott, E. C. (1989). On the rise of epistemic meanings in English: An example of subjectification in semantic change. *Language, 65*(1), 31-55. https://doi.org/10.2307/414841

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

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