

EPISTEMIC MARKERS IN MÓǾÚKRÙ AND BAULE

Louis Charles Kouadio Kouamé BOHOUSSOU
Université Felix Houphouët-Boigny, Côte d'Ivoire
blcharly@yahoo.com // louis.charles@univ-fhb.edu.ci
&
Boni Carlos Mozer KPAMI
Université Felix Houphouët-Boigny, Côte d'Ivoire
mozercarlosk@gmail.com

Abstract: This research work deals with epistemic modality in MóǾúkrù and Baule. It starts from the observation that speakers of these two languages make use of linguistic expressions to attenuate discourse. So, this study aims at revealing the linguistic strategies used by these languages to account for epistemic modality. In both Baule and MóǾúkrù, three categories of modalisers serve as markers of epistemic. These are grammatical modalisers, lexical modalisers and modaliser phrases. These languages admit the co-occurrence of modalities by virtue of the cartographic approach.

Keywords : Epistemic markers, Cartographic structure, contrastive analysis, MóǾúkrù, Baule

LES MARQUEURS EPISTEMIQUES EN MÓǾÚKRÙ ET EN BAULÉ

Résumé : Ce travail de recherche traite de la modalité épistémique en móǾúkrù et en baoulé. Il part du constat que les locuteurs de ces deux langues font usage d'expressions linguistiques pour atténuer le discours. Ainsi, cette étude se propose de révéler les stratégies linguistiques utilisées par ces langues pour rendre compte de la modalité épistémique. En baule comme en móǾúkrù, trois catégories de modalisateurs servent de marquage de l'épistémique. Il s'agit des modalisateurs grammaticaux, lexicaux et les syntagmes modalisateurs. Ces langues admettent la cooccurrence des modalités en vertu de l'approche cartographique.

Mots-clés: marqueurs épistémiques, structure cartographique, analyse contrastive, móǾúkrù, baoulé

Introduction

Research in descriptive linguistics has recently focused on linguistic properties and how they are structured across languages. Thus, the judgment of truth value is a property of language. Therefore, epistemic modality is seen as one of the universal constraints of natural languages. However, work on epistemic modality is almost non-existent in Kwa languages. Epistemic

modality is a frequently used mitigation strategy in discourse (Vold 2008). This strategy allows us to assess the degree of certainty of an utterance. From a theoretical point of view, epistemicity is a universal property. But, the manifestation of epistemicity differs from one language to another. Thus, this work focuses on epistemic expressions in Mòdžukru and Baule. The question that emerges from this work is: how is modality expressed in these two languages? This question leads to other ones, namely: what are the epistemic markers in these two languages? How are these markers syntactically structured in these languages? The aim of this work is to report on the different linguistic means used by Mòdžúkrù and Baule to express epistemic modality. This work is organized in four sections. Section 1 presents the methodological, theoretical and notional framework. The second one identifies the epistemic modalizers. The third one describes the different markers of epistemic modality. The last section reveals the co-occurrences between epistemic modality and other modalities.

1. Methodological, theoretical and conceptual framework

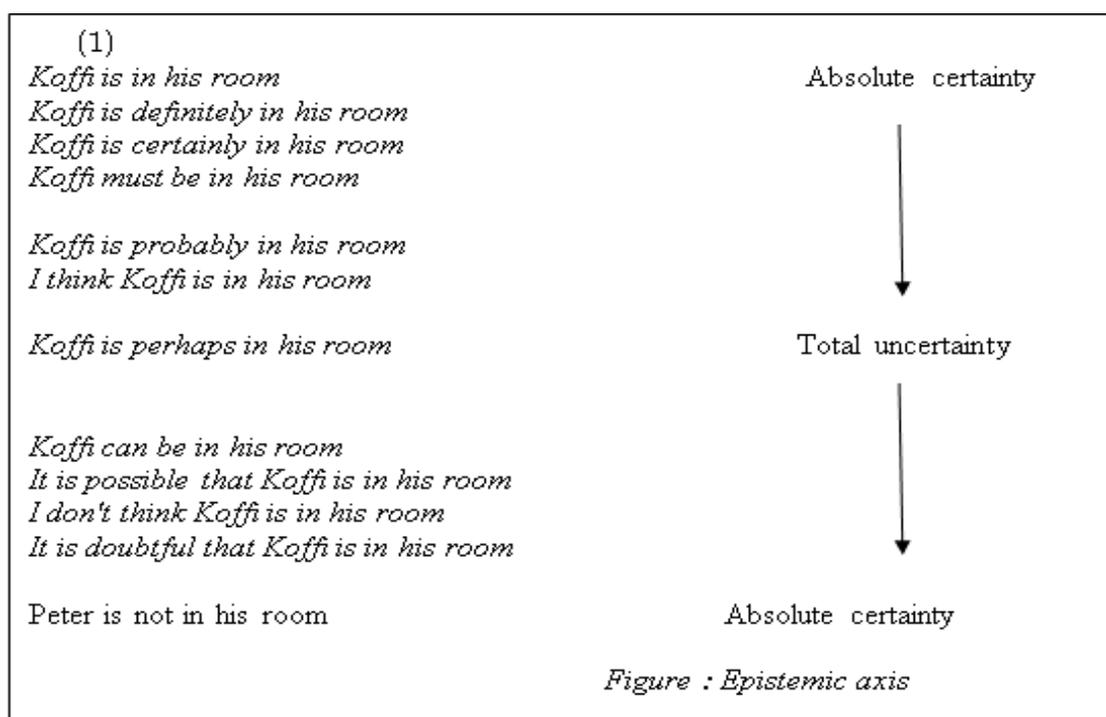
In this section, we first discuss the methodological framework, then the notional framework and finally the theoretical framework of the work.

1.1 Methodological framework

The data used in this work is typically epistemic expressions in mòdžúkrù and Baule. It comes from a field survey. For the data collection, we submitted sentences from the epistemic axis proposed by Le Queler (1996) to speakers of both languages. That data is described in the light of the cartographic approach, a branch of minimalist program which predicts that all natural languages have one and the same underlying structure. Minimalist program further states that structural differences are actually insignificant. However, before identifying the epistemic markers, it is important to define epistemic modality.

1.2 Conceptual and theoretical framework

Epistemic refers to the "judgment value and depends on the speaker's knowledge of the world (Papafragou 2005, Oswald & Rihs 2018, Le Queler 1996, Vold 2008)". This modality shows the speaker's impression of the information contained in the message (Cinque 1999). It is gradual, i.e. it goes from certainty to uncertainty called "epistemic axis". Thus, the sentence *Koffi is in his room* can be attenuated by several modalisers as rendered by Le Queler (1996):



Before moving to the identification of epistemic markers, it is essential to make a clarification between epistemic modality and evidential modality. The classification of both modalities is not unanimous among linguistic researchers. While some researchers include epistemic modality in the evidential domain (Hyland 1998), others do the opposite (Dendale and Tasmowski 2001). For the purpose of this work, we adopt Palmer's (2001) approach, according to which, epistemic and evidential modalities are perceived as distinct.

2. Identification of epistemic markers

This section is devoted to the identification of epistemic markers in Mòdzúkrù and Baule.

2.1 Epistemic markers in mòdzúkrù

Epistemic modality is expressed in mòdzúkrù through several strategies. These strategies are used to assess the degree of certainty of a statement; the statements in (2) are examples of Those strategies.

(1) Expression of certainty

- | | | | | |
|----|------------------------------|---------|------|--------------------|
| a. | kòfí | ánǰ | ákǰ | [Affirmative form] |
| | Koffi | Cop | room | |
| | « Koffi is in the room » | | | |
| b. | kòfí | ánǰ_m̀ | ákǰ | [Negative form] |
| | Koffi | Cop_Neg | room | |
| | « Koffi is not in the room » | | | |

(2) Expression of uncertainty

- c. **o** **glóg** kòfi **bw_ánj** ákj
 Adv_Mod Koffi Mod_Cop room
 « Koffi can be in the room »
- d. **sañ** kòfi **bw_ánj** ákj
 Adv.Mod Koffi Mod_Cop room
 « It is possible that Koffi is in the room »
- e. **ow_bw_el** kòfi anj akj
 Perhaps Koffi Cop room
 « Koffi is perhaps in the room »
- f. m òp_m_óm̀ǹ éké kòfi òtú éké k_ánj ákj
 1Sg believe_Neg_Part Comp Koffi can Comp Mod_Cop
 room
 « I don't think Koffi is in the room »
- g.
 h. m òp_m_óm̀ǹ éké kòfi **bw_ánj** ákj
 1sg croire_Neg_Part Comp Abré Mod_Cop room
 « It is doubtful that Koffi is in the room »
- i. **ésé** kòfi in ánj ákj **af**
 Adv.Mod Koffi 3sg Cop room Post
 «It seems that Koffi is in the room »
- j. kòfi **bw_ánj** ákj
 Koffi Mod_Cop room
 « Koffi is probably in the room »
- k. kòfi òtú éké k_ánj akj
 Koffi can Comp Mod_Cop room
 « Koffi might be in the room »
- l. kòfi òtú anj akj
 Koffi can Cop room
 « Koffi can be in the room »
- m. m òp_óm̀ǹ éké kòfi ánj ákj
 1sg believe_Part Comp Koffi Cop room
 « I think Koffi is in the room »
- n. m òp_óm̀ǹ **tási_ɛm** éké kòfi ánj ákj
 1sg believe.Acc_Part Vrai_Post Comp Koffi Cop room
 « I think Koffi is certainly in the room »

Three strategies are used to express epistemic modality in mòdžúkrù. In the first strategy, there is no use of modaliser. This is the mark of certainty. In the

- j. n búmà kè kòfí wó ì suǎ nù ló
 1Sg think-Neg Comp kòfí Cop Poss house Adp Loc
 «I don't think that Koffi is in his house»
 Absolute certainty
- k. kòfí wò í suǎ nù ló [Affirmative form]
 Koffi Cop Poss house Adp Loc
 «koffi is in his house »
- l. kòfí númè í suǎ nù ló
 Koffi Cop_Neg Poss house Adp Loc
 koffi be not his house inside
 «koffi is not in his house »

The examples in Baule reveal that, excepted certainty forms, mitigation statements, i.e. uncertainty forms, make use of modalisers. To this end, several epistemic modalisers are used: these are the modalisers *su*, *klwá*, *klwà*, *sakpa*, *í búmà*, *ó jómà*, *í láfí sú*, *ó klwá jò sú*. These modal expressions can be classified into three categories: grammatical modalisers (*su*), lexical modalisers (*sakpa*, *klwá*, *klwà*) and modalising phrases (*n láfimà sú*, *o jómà*, *n búmà*). All these epistemic markers will be described in the next section.

3. Description of epistemic markers

This part describes the markers identified in Mòdžúkrù and Baule.

3.1. Epistemic markers in Mòdžúkrù

As identified above, epistemic markers in mòdžúkrù fall into three categories. There are grammatical modalisers, lexical modalisers and phrases for modalisation.

-Grammatical modalisers

Several grammatical morphemes are involved in the modalisation of statements in Mòdžúkrù. The most prolific are *ki*, *oglog*, *saŋ*, *ese...af* and *bw*. Some contexts of use are exemplified in (5).

(4)

- a. o□lóg kòfí bw_án) ák)j
 Mod Koffi Mod_Cop house
 «Koffi is perhaps in the house »
- b. saŋ kòfí bw_án) ák)j
 Mod Koffi Mod_Cop house
 «It is possible for Koffi to be in his house »
- c. ésé kòfí in án)j ák)j áf
 Mod Koffi Pro Cop house Post
 «It seems that Koffi is in his house»

- d. kòfi òtú éké k_ánj àkij
 Koffi can Comp Mod_Cop house
 « Koffi can be in his house »

Except for the morphemes *ki* (volitive) and *bw* (future) which are preverbal modals, the morphemes *oglog*, *sanj*, *ese...af* are realised at the beginning of the sentence (Kpami 2021).

-Lexical modalisers

The use of modal verbs, also called modal auxiliaries, is one of the methods used in several languages for modalising the sentence. Thus, like French and English which admit modal auxiliaries, in Mòdžúkrù, two auxiliary verbs act as modality expressions. These are the auxiliaries òtú 'to be able' and àj_òmù 'to believe'. Auxiliary òtú which means 'to be able to' is a modaliser par excellence in this language. It admits an embedded clause introduced by the complementizer éké.

- (5)
- a. kòfi òtú éké k_ánj àkij
 Koffi can Comp Mod_Cop house
 «Koffi can be in the house »
- b. kòfi òtú k_ánj àkij
 Koffi can Mod_Cop house
 «Koffi can be in the house »
- c. m àj_òmù éké kòfi ánj àkij
 1sg believe.Perf_Part Comp Koffi Cop house
 « I believe that Koffi is in the house »
- d. m àj_òmù tási_em éké kòfi ánj àkij
 1sg believe.Perf_Part True_Post Comp Koffi Cop house
 «I believe that Koffi is certainly in the house »

-Modalising phrases

This modaliser *ow_bw_el* means 'perhaps'. It is used to mark a situation of absolute uncertainty as shown in the examples in (7).

- (6)
- òw_bw_èl kòfi ánj àkij
 Mod Comp Cop house
 « Koffi is perhaps in the house »

The modal adverb *òw_bw_èl* results from the grammaticalization of the sentence *òw b_òw el* which literally means "it will be". When it plays the role of a modal adverb, it is translated as "perhaps". It is worth noting that the modaliser *ow_bw_el* always retains its syntactic position. This explains the

ungrammaticality of the structure in (7b) where the modaliser is placed between the copula *ánǵ* and the DP *ákǵ* ('house').

3.2. Epistemic markers in Baule

In this section, we describe the epistemic modalisers according to their grammatical category. As identified in the previous section, Baule uses three categories to express epistemic modality: grammatical modalisers, lexical modalisers and modalising phrases.

-Grammatical modalizers

Epistemic modality can be expressed in Baule through the use of grammatical modalisers. The morpheme *su* in (8) is an example of grammatical modalisers.

- (7)
- | | | | | | | | | | | |
|----|-----|-----|-----|------|------|-----|------|-------|-----|-----|
| a. | ó | tì | sú | ké | kòfí | wó | ì | suǎ | nù | ló |
| | Imp | Cop | Mod | Comp | kofi | Cop | Poss | house | Adp | Loc |
- « It is certain that Koffi is in his house » ou

This example shows that the morpheme *su* is an uncertainty modaliser. It comes into play in the case of lower uncertainty. The morpheme *su* is usually followed by *kè* which is a complementizer, i.e. the morpheme *su* introduces a clause governed by a CP (complementizer phrase).

-Lexical modalisers

The Baule language also uses lexical morphemes to express epistemic modality. These morphemes are generally verbs commonly called modal auxiliaries. They concern *klwá* « can » *klwà* « must » and *sákpà*, « certainly » illustrated in (9).

- (8)
- | | | | | | | | |
|----|-------|------|----------|------|-------|-----|-----|
| a. | kòfí | klwà | trà | í | suǎ | nù | ló |
| | Koffi | Mod | Sit_Inac | Poss | house | Adp | Loc |
- « Koffi is perhaps in his house »
- | | | | | | | | |
|----|-------|------|----------|------|-------|-----|-----|
| b. | kòfí | klwá | trà | í | suǎ | nù | ló |
| | Koffi | Mod | Sit-Inac | Poss | house | Adp | Loc |
- « Koffi must be in his house »
- | | | | | | | | |
|----|------|------|-----|----------|-------|-----|-----|
| b. | kòfí | klwà | wó | í | suǎ | nù | ló |
| | Kofi | Mod | Cop | 3Sg-poss | house | Adp | Loc |
- « Koffi can be in his house »
- | | | | | | | | |
|----|-------|-----|------|-------|-----|-----|-------|
| c. | Kòfí | wó | í | suǎ | nù | ló | sákpà |
| | Koffi | Cop | Poss | house | Adp | Loc | Adv |
- « Koffi is surely in his house »

In Baule, modal auxiliaries such as *klwá* 'can' *klwà* 'must', *sákpà*, 'certainly' help to mitigate the epistemic value. The modalities in statements (9a) and (9b) are distinguished by tonal marking. In (9a), the low tone on the modal refers to

possibility. In (9b), the high tone on the modal refers to the idea of certainty. So, the difference between *klwá* 'can' and *klwà* 'must' lies in their tone position.

-Modalising phrases.

The expressions *láfimà*, *jómà* and *búmà*, which mean 'not to think', play the role of epistemic modalisers. The verb *fata* means "to have to"; it expresses an epistemic value of necessity. All these expressions are IPs that select CPs introduced by *ke* (See 10).

(10)

- a. *ń láfimà sú kè kòfí wó ì suǎ nù ló*
 1Sg Sleep_Neg Mod Comp kofi Cop Poss house Adp
 Loc
 « I don't think that Koffi is in his house »
- b. *ó jómà mì kè kòfí wó ì suǎ nù ló*
 Imper do-Neg 1Sg Comp kofi Cop Poss house Adp Loc
 « I don't think that Koffi is in his house »
- c. *ń búmà kè kòfí wó ì suǎ nù ló*
 1Sg think-Neg Comp kòfí Cop Poss house Adp Loc
 « I don't think that Koffi is in his house »
- d. *ò fátà ké á kò* [Bohoussou 2018:114]
 Imper have to-Inac Comp 2sg Partir
 «It is necessary for you to go»

Some of the modalisers described so far may co-occur. This aspect will be discussed in section (4).

4. Co-occurrence of modalities

In most natural languages, some modalities have the ability to co-occur¹ with others. This is the case of the epistemic modality which co-occurs with the evidential, the possibility and the necessity.

4.1 Epistemic and evidential

The evidential is defined as the speaker's testimony of the existence of the information content. It merges with the epistemic modality in the sense that the truth value of the evidential statement is judgeable. In both *Móǰúkrù* and *Baule*, these two modalities can co-occur. One example per language in (11) is sufficient to demonstrate it.

(11)

- a. *ésé kòfí in áń àkń af* [Mòǰukru]
 Adv.Mod Koffi 3sg Cop house Post
 « It seems that Koffi is in the house »

¹ See [Bohoussou,2018] for more details about the co-occurrence and cartography of modalities in Baule.

- b. ó jó mì kè kòfí wó ì suà nù ló
[Baule]
- c.
Imp do 1Sg Comp kofi Cop Poss house Adp Loc
It makes me that Koffi be in his house
« It seems to me that Koffi is in his house »

The co-occurrence of the epistemic and evidential modalities is effective in both Baule and Mòdžúkrù, languages. However, the strategy used by those languages is different. Baule uses an IP structure or modalising phrase ó jó mì kè which literally means 'It makes me that'. This expression can be translated as "It seems to me that". As for Mòdžúkrù, it employs a lexical modaliser *εεε* which is an AdvP (modal adverb). It can take on the meaning of 'it seems that'. In both languages, those modalisers are expressed at the beginning of the utterance.

4.2 *Épistemic and possibility*

The co-occurrence of a possibility modality with an epistemic modality is very frequent in natural languages. Indeed, theoretically speaking, any possibility is a presumption, i.e. it implies an element of uncertainty. This is why it is difficult to dissociate the markers of these modalities in some languages. These are the cases of òtú 'can' for Mòdžukru and klwà 'can' for Baule as exemplified in (12).

- (12)
- a. kòfí òtú éké k_anj akɲ [Mòdžukru]
Koffi can Comp Mod_Cop house
« Koffi can be in the house »
- b. Kòfí klwà trà í suà nù ló [Baule]
Kofi Mod Sit-Imperf Poss house Adp Loc
Koffi can sit his house inside
« Koffi can be in his house »

The examples in (12) show that in both languages, epistemic and possibility modalities are expressed through modal verbs. However, the particularity of Mòdžúkrù lies in the use of the grammatical modal *ki* preposed to the copula *ánj*. This strategy for expressing modality refers to what Hacquard (2009) calls harmonic modality².

4.3 *Epistemic and necessity*

Necessity is one of the deontic modalities that correspond to what should be called "modality of DOING". To do this, the speaker subject puts intensity on the utterance. It is also associated with the epistemic because the truth value of the statement is presumed. The examples in (13) in Baule and Mòdžúkrù

² See Kpami, (2021) for harmonic modality in Mòdžukru.

respectively show the universality of this modality in accordance with the cartographic approach.

(13)

a. ð fátà ké á fà ð árē mù [Baule]
 Impers have to Comp 2sg take 2sg-poss tablet Def-Pl
 «It is necessary for you to take your tablets»

a. ow_ìt k_òf n_éǵĩ sèpká [Mòǵúkrù]
 Mod Mod_Take 2sg_Gen Tablets
 «It is necessary for you to take your tablets»

Conclusion

The main objective of this work was to reveal epistemic markers in Mòǵúkrù and Baule. Mòǵúkrù and Baoulé manifest several modalisers divided into three categories: lexical modalisers, grammatical modalisers and modalising phrases. The study verifies that epistemic modality intermingles with evidential modality and possibility modality. It has also been shown that some epistemic expressions use modal harmony as in Mòǵúkrù. Through the expression of epistemic in Mòǵúkrù and in Baule, we have shown some universals. Thus, despite the apparent differences displayed by natural languages, they are substantially identical in the expression of epistemic modality.

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