

## Polar interrogatives in Lete Discourse

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### Abstract

The use of special intonation patterns, interrogative particles, the addition of tags, disjunctive structures, a change in the order of constituents, and particularly verbal inflection are among strategies for forming polar questions. This paper describes the use of a special intonation pattern, the use of interrogative tags in tandem with a special intonation pattern, and the use of question particles in conjunction with a special intonation pattern to form polar questions in Lete. The paper further discusses social norms governing the use of polar interrogatives in Lete discourse. Lete is a less-studied South-Guan language of the Kwa family of Ghana. Data for this study form part of a larger database collected in the speech community – Larteh. Praat was used to analyse the pitch patterns of the polar questions informants produced. The paper demonstrates that Lete polar interrogatives are marked by a sharp falling intonation and not a rising intonation as claimed in prior studies.

**Keywords:** Lete, polar questions, intonation pattern, question tags, interrogative particles

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### Introduction: some typological features of Lete

Lete<sup>1</sup> is a South-Guan (Niger-Congo, Kwa) language (Eberhard, Simons & Fennig, 2021) spoken in southeastern Ghana, West Africa, by about 10,175 people (2010 Ghana

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<sup>1</sup> Lete is name of the language under discussion. Alternative names in the literature are Larteh, Leteh and Late. In this paper, Lete refers to the language, whereas Larteh stands for the town where the language is spoken.

Population and Housing Census). The language has not been studied extensively and does not possess an official orthography<sup>2</sup>. Lete appears to have a symmetric set of 9 vowels; 4 vowels: /i, e, o, u/ produced with an advanced tongue root [+ATR] that are paralleled by four other vowels, /ɪ, ɛ, ɔ, ʊ/, which are produced with a retracted tongue root [-ATR]. The ninth vowel, the low central vowel /a/, is unpaired. Lete syntax exhibits an AVO and SV order. It is a register tone language with two level tones, High (1) and Low (2). Similar to related languages like Akan, the syllable in Lete functions as the tone-bearing unit. The high tone (H) is perceived at the phonetic level as a relatively high pitch of the voice, whereas the low tone (L) is realized on a relatively low pitch (Akrofi Ansah, 2015/16: 99). Data reveal that there is a one-to-one correlation between the number of syllables and the number of tones in stem words (3). However, in some cases, a syllable may carry a sequence of two contrastive tones which are analysed as contour tones; a sequence of HL, perceived as a falling pitch (4) or a LH pattern distinguished as a rising pitch, which is rare in Lete discourse (5).

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|------------------------------|--------------------------|
| 1) <b>nú</b> ‘meat’          | <b>bá</b> ‘hand/arm’     |
| 2) <b>nù</b> ‘drink’         | <b>bà</b> ‘sew’          |
| 3) <b>à.kì.tì.bí</b> ‘small’ | <b>bù.ṅ.kyí</b> ‘return’ |
| 4) <b>ké` .mì</b> ‘rib’      | <b>dwó</b> ‘yam’         |
| 5) <b>hṁ́</b>                |                          |

Grammatical tone functions to create tense and aspectual distinctions, whereas a change in tone implies a change in meaning (Akrofi Ansah, 2015/16). In this paper it will be demonstrated that pitch and tone pattern changes play a central role in the formation of Lete polar questions. Question types that have been identified in Lete include focused constituent interrogatives<sup>3</sup>; in-situ constituent interrogatives; discontinuous interrogative

<sup>2</sup> In this paper, an orthography based on a 7-vowel system is employed (i, e, o, u, ɛ, ɔ, a); Lete high vowel variants are therefore not differentiated here.

<sup>3</sup> For a detailed account of Lete focused constituent interrogatives, see Akrofi Ansah (2010).

word/phrase interrogatives; alternative interrogatives and polar interrogatives (Akrofi Ansah, 2009). The focus of this paper is the formation of polar questions in Lete and their use in discourse.

### **The data**

Data for this paper form part of a larger database collected in the speech community, Larteh, in July 2007. In all, 12 informants (6 males and 6 females) who were basic school teachers were consulted. The teachers were proficient in Lete, Akuapem Twi and English. They were purposively selected, because we needed informants who had knowledge of the nature of polar questions/yes-no<sup>4</sup> questions. Each informant/teacher was therefore given 10 statements in Lete, and was expected to convert the 10 statements into yes/no questions. Their utterances were recorded and sorted. The analysis revealed that the informants had used various strategies to compose polar questions. The sentences were therefore sorted into types of polar questions formed by various strategies. One hundred and twenty statements were administered, and 120 polar questions were obtained. Out of the 120 questions, we had the following types of polar questions formed by various strategies: polar questions formed by a sharp falling intonation only; polar questions formed by interrogative tags and a sharp falling intonation; and polar questions formed by a sharp falling intonation and question particles as depicted by Table 1. Praat (4.1.x) was utilized for the analysis of the polar questions which were formed by a sharp falling intonation in order to get the pitch pattern. Pitch traces were consequently obtained.

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<sup>4</sup> In this paper, polar questions and yes/no questions are used interchangeably.

Table 1: Polar question formation strategies in Lete

Strategies	Number of questions	Percentage
Sharp falling intonation only	96	80
Interrogative tags with a sharp falling intonation	12	10
Question particles with a sharp falling intonation	12	10
	120	100%

Table (1) depicts that, like previous findings (Caeser, 2016; Cahill, 2015; Ultan, 1978), the use of intonation is the most common strategy for marking polar interrogatives. In Lete, interrogative tags and question particles are sometimes used in addition to a sharp falling intonation.

### On polar interrogatives

Strategies available to languages for polar interrogatives include “... special intonation patterns, interrogative particles, the addition of tags, disjunctive structures, a change in the order of constituents, and particular verbal inflection” (Siemund, 2001, p.1012). According to an empirical study done by Ultan (1978), intonation is the most common strategy employed by most languages, although in some languages, intonation is used in concert with one of the other devices (see Table 1). Based on his sample, Ultan comments that 95% of the world’s languages employ a rising intonation towards the end of the contour. For example, in French, Spanish and Italian, there seems to be a pitch rise at utterance-final to mark a polar question (Chapallez, 1964). Also in English, a statement’s pitch lowers utterance-finally, but the corresponding question’s pitch rises. Likewise in Thai, there is a rise in pitch for yes/no questions (Luksaneeyanawin, 1998).

Furthermore, Siemund (2001, p.1013) explains that “Rising intonation, due to its openness in terms of pitch or frequency, is tantamount to uncertainty with regard to the truth-conditions of the situation described and non-termination of the current turn, whereas the falling intonation usually used in declaratives signals conviction and termination”. In the same vein, Ohala (1984) and Bolinger (1978) note that cross-linguistically, terminals are almost low or falling for finality and assertion, and high or rising for the opposite, including yes-no questions, and that a high or rising pitch indicates a polar question. This pattern has however been found to be contrary to what pertains in Lete and other languages of the Niger-Congo group.

It is reported in the linguistic literature that in Niger-Congo languages, the intonation used for polar questions is not rising but falling (Watters, 2000). König and Siemund (2007, p.292) corroborate that, and report for instance that, Fante (Niger-Congo, Kwa) and Grebo (Niger-Congo, Kru) depart from this pattern. A further study in other Kwa languages show that a falling intonation is one primary strategy used in marking polar questions in Dangme (for example, Caesar, 2016). Again, Cahill (2015), after studying 3 Gur languages of Ghana, Buli, Deg and Safaliba and 2 Kwa languages, Adele and Chumburung, concluded that polar question intonation in all the 5 Ghanaian languages exhibit some sort of falling pitch, as well as a long final vowel. This final vowel takes 2 forms: three of the five languages (Buli, Deg, Chumburung) add a sentence-final /-aa/, but Safaliba and Adele simply lengthen the final vowel or nasal. Chumburung usually has final [h] ‘breathy termination’ in polar questions, and in the case of Deg it is rather intermittent. Other Kwa languages which the literature report their polar questions as exhibiting a terminal pitch lowering are Ga (Dakubu, 2001; Kotey, 2002) and Akan (Dolphyne, 1988; Saah, 2000). This paper will also demonstrate that in Lete, the use of a final falling pitch is the most common strategy in signaling a polar question. The paper will look at two additional strategies for signaling

polar questions as operated in Lete: interrogative tags and question particles which function in conjunction with a sharp falling intonation pattern.

### **Marking polar interrogatives by a sharp falling intonation only**

Data gathered (Table 1) suggest that the basic and the commonest strategy for marking polar interrogatives in Lete is a relatively sharp drop in intonation which occurs on the final syllable in clause final position. Lete polar questions have the same word order (Subject, Verb, and Object (SVO)) as corresponding declaratives. What marks polar questions is a special intonation with which they are produced. For both (6a) and (6b), the word order is SVO; however, the final syllable of (6b) bears a sharp fall in intonation to qualify as a polar question (compare Figures 1 and 2). In (7), the answer to the polar question is given.

- 6)a    **Ñ -yìrèbí**    **á**    **dé-kèrà**    **é- wùrè.**  
PL- child    DEF    PROG-read    PL- book  
'The children are reading books'.

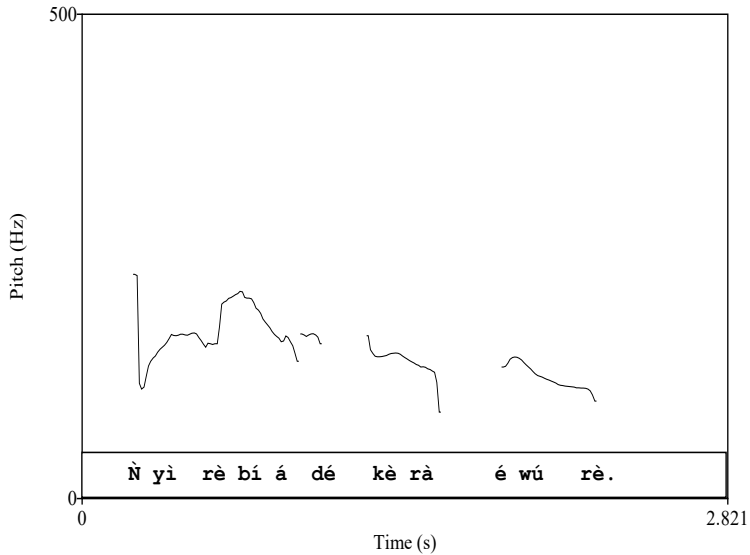


Fig. 1 A pitch trace of a declarative sentence

b. **Ñ -yìrẹ̀bí á dé-kẹ̀rà é- wùrẹ̀'?**

PL- child DEF PROG-read PL- book

‘The children are reading books’?/Are the children reading books’?

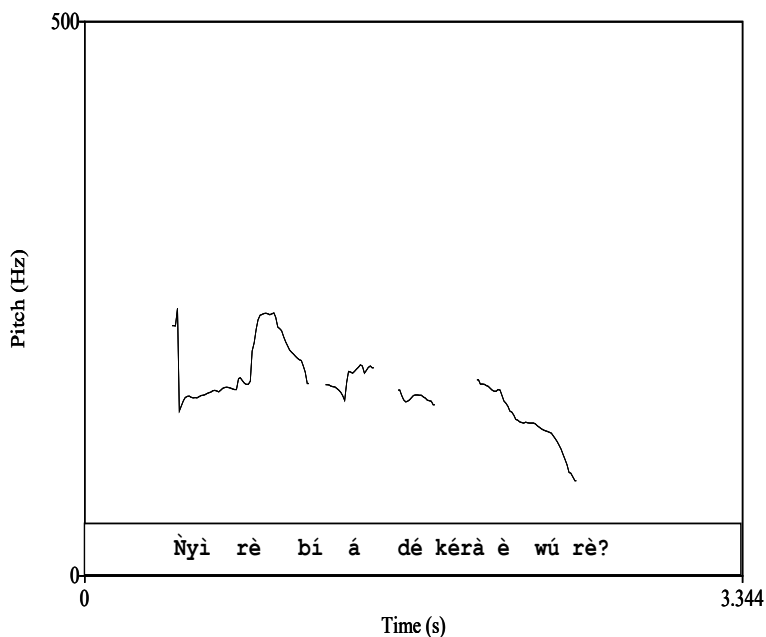


Fig. 2 A pitch trace of a polar interrogative sentence

7) Answer

**Yó / dàbí**

‘Yes (they are reading books) / No (they are not reading books)’.

The intonation pattern of the declarative sentence is level on the penultimate syllable and falls gently on the last syllable (Fig. 1). With the polar question (Fig. 2), the last syllable is characterized by a sharp falling intonation. The pitch traces in Figures 1 and 2 illustrate the intonation contrast. The answer to (6b) is yes/no, therefore what distinguishes (6a) from (6b) is the alteration of the intonation pattern, from a gentle falling intonation to a sharp falling intonation. In marking polar



questions by intonation, the tone borne by the final syllable at clause final position which was previously said with a gentle falling intonation is now said with a sharp falling intonation. There is also some raising in the general pitch levels of the interrogative sentence which ends in a sharp drop on the pitch of the last syllable of the clause. Saah (2002, p.2) reports a similar phenomenon in Akan where polar interrogatives are said to be “. . . characterized by a slight raising in the general pitch levels of the sentence terminating in a sharp drop on the pitch of the last syllable of the sentence”. Although Ga (Kwa) is reported to employ intonation as a tool for marking polar interrogatives, it differs from Lete in the sense that “. . . the pronunciation of the final tone of the utterance is the reverse of its usual contour” (Dakubu, 2001, p. 2). What this means is that if the tone on the final syllable of a declarative is low, it changes to a high tone as a polar interrogative and vice versa.

A positive answer to a polar question implies that the addressee confirms that the proposition content is true. A negative answer on the other hand means that the proposition content in the polar question is false. This applies to both positive and negative polar questions in Lete (see examples (8a), (8b) and (9)).

8)a. **Ñ-yìrèbí            a            bɛ́-dé-kèrà            è-wúré.**  
 PL – child      DEF      NEG-PROG-read      PL-book  
 ‘The children are not reading books.’

b. **Ñ-yìrèbí            á            bɛ́-dé-kérá            é-wúré?**  
 PL – child      DEF      NEG-PROG-read      PL-book  
 ‘The children are not reading books?’

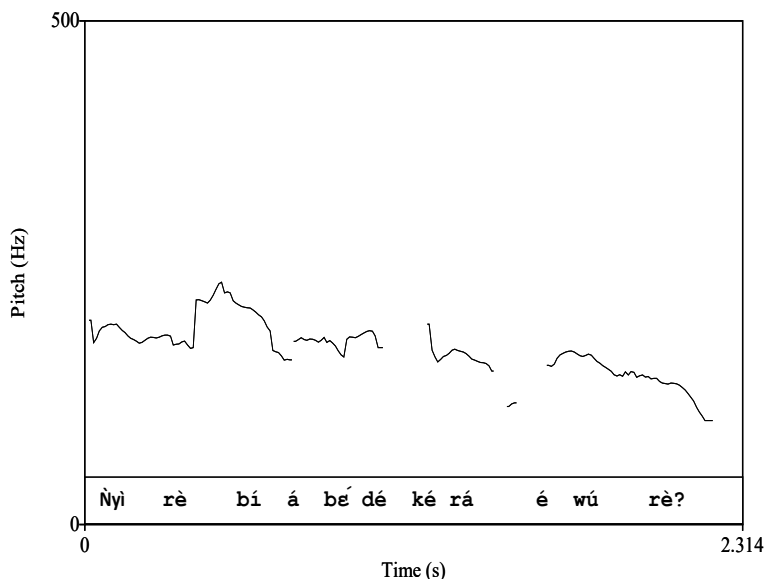


Fig. 3 A pitch trace of a negative polar interrogative

9) Answer

**Yó / Dàbí**

‘Yes (they are not reading books) / No (they are reading books)’.

Examples (6)-(9) further indicate that whether the polar interrogative is negative or positive, the intonation marker remains a falling one, occurring as a sharp drop on the last syllable at clause-final position as also illustrated in Figure 3.

Ultan (1978) attempts to draw a correlation between basic word order and intonation pattern; he claims that all languages with falling polar question intonation are postpositional. This seems to be true of Lete which is largely postpositional (Akrofi Ansah, 2021) and also of a related language like Akan (Kwa)

(Dolphyne, 1988). Given that nearly all Niger-Congo subgroups operate SVO basic word order (Watters, 2000, p.197), it will be interesting to investigate the correlation further.

In addition to a sharp falling intonation, we illustrate how interrogative tags and question particles can also be used to mark polar questions in Lete in combination with a sharp falling intonation.

### Marking polar interrogatives with interrogative tags

The use of interrogative tags presents another strategy for marking polar interrogatives in Lete. They are used in conjunction with a sharp falling intonation. Consequently, when tags are added to a declarative sentence, they usually receive the intonation pattern typical of polar interrogatives. A common question tag that is employed in informal interaction in Lete is ‘**mé fúánò?**’ which may be translated into English as ‘am I telling a lie?’ The tag is appended to the end of either a positive or a negative declarative (10). Contrary to what pertains in English, in Lete, an addressee would respond to the proposition in the tag and not that in the declarative sentence.

The prelude to the dialogue in (10) is that Frog meets Chicken at a river bank and asks what his mission is. Chicken knows very well that Frog can swim yet, he asks him. Chicken makes a categorical statement and adds a tag (10c). The tag receives a sharp falling intonation pattern characteristic of polar questions in Lete. In this encounter, Frog’s answer negates the tag (10d) to mean that he can swim, which is the expected answer.

- 10a) Akpətrəbi: mènɛ̀tɛ̀ né wò-dé-sòkyè bò m̀fé?  
 ‘Frog’            What FOC 2SG-PROG-search be at here  
 ‘Frog’            ‘What is it that you want here?’

- b. **Okireni:**      **mé**              **yó**              **yé-kéré**              **mé.**  
 Chicken:      1SG.POSS      skin      PERF-catch      1SG  
 Chicken:      ‘I am in trouble.’
- c. **Wù-nì**                      **ntsubiε,**              **mí-fúánò?**  
 2SG-PRES.know      swimming      1SG-telling a lie?  
 ‘You can swim, am I telling a lie (can’t you)?’
- d. **Akpɔtrɔbi: Dàbí! Mèntè èsè?**  
 Frog:              No,      what      case?  
 ‘No, what is the matter?’

Kotey (2002) also reports that Ga (Kwa) speakers use a tag **gyéé nákáí** ‘not so’ which is placed at the end of declaratives. Similarly in Ewe (Kwa), Dzameshie (2001, p. 24) notes that a morpheme acting as a tag is put at the end of a declarative which “... functions among others as an interactional strategy that speakers use when they want hearers to concede a point”. It has been observed that polar interrogatives based on tags are usually biased when it comes to the answer expected (Akrofi Ansah, 2009). In a conversation for instance, the speaker expects the addressee to concede to the proposition in the declarative.

### Marking polar interrogatives with interrogative particles

Siemund (2001) remarks that after intonation, the use of interrogative particles is the most widely used strategy for coding polar interrogatives. Interrogative particles (IP)<sup>5</sup> may be used in conjunction with a sharp falling intonation to mark polar interrogatives in *Lete*; these are **sò**, **ánsò**, **ńté**. These are always placed at the beginning of a positive declarative to form polar questions.

**Sò** is used at clause initial position of a declarative when the speaker is demanding an affirmation or denial of the propositional content of the declarative as shown in (11a). The

<sup>5</sup> The interrogative particles do not have lexical content.

answer may therefore be ‘yes’ or ‘no’; to affirm the truth value of the propositional content or to deny the propositional content of the declarative sentence (11b).

- 11)a. Ananse: Sò wò-bò mírèdúkú’?  
 Spider IP 2SG-PRES.have handkerchief  
 Spider: ‘Do you have a handkerchief?’
- b. Akpotrobi: Yó. Été mètí-dé bò mífé. . .  
 Frog Yes. What 1SG-PROG-hold at here . . .  
 Frog: ‘Yes. What I have here is more than enough.’

Without the IP, example (11a) would be: **wòbò mírèdúkú** ‘you have a handkerchief’, a declarative, with the final syllable pronounced with a gentle falling intonation. When the IP **sò** is introduced, there is also an alteration of the intonation level; from a gentle falling intonation to a sharp one. The answer is an affirmation of the propositional content of the declarative.

Although there are no honorific forms of interrogative particles (IPs), the informants made it clear that, in the Lete cultural setting, the IP **sò** is only used among peers, and also when an adult is addressing a child. It is therefore regarded as rude if a child addresses an adult using it.

The second IP, **ánsò**, is used when a speaker may be aware of a particular happening, but for its confirmation, he or she poses the polar question using **ánsò** (12b). The IP is used in various social contexts for different purposes. In rare circumstances a child may use **ánsò** during an interaction with an adult, to index a plea or a request. In its role as an interrogative particle, it is restricted to peers and also from adult to child, just like **sò**. A child is expected to precede every polar question with **mékpé wó kótó** ‘please’ when addressing superiors.

The use of **ánsò** as an IP is exemplified by (12b) where a negative declarative (12a) with a rising intonation is turned into

a polar interrogative which is said with a sharp falling intonation. The tone of the final syllable of the declarative is variable, but once it is turned into a polar question, it changes to become a sharp falling intonation.

12)a. **Wóné mé-n-yó sùkúù nné.**  
 2PL NEG-PST-go school today  
 ‘You did not go to school today.’

b. **Ánsò wóné mé-ń-yó sùkúù nnè’?**  
 IP 2PL NEG-PST- go school today  
 ‘So you did not go to school today?’

The third interrogative particle (IP) identified in *Lete* is **ńté**. Like all polar questions, it is also used when the speaker is seeking confirmation of the truth or falsity of the propositional content of the declarative which serves as the input. Similar to the other two IPs, it occurs in clause initial position. Clause-finally, specifically on the last syllable, a sharp drop in intonation is found which is characteristic of *Lete* polar interrogatives. The IP **ńté** may be added to a declarative sentence, and similar to the two already discussed IPs, its use is restricted to interaction among peers and by adults to children. When a speaker uses **ńté**, an affirmation is expected from the addressee. In the following extract (13), its use in discourse is illustrated.

13a) **Okireni: ńté wò-nì mè?**  
 Chicken: IP 2SG – PRES. know 1SG  
 Chicken: You know me, don’t you?’

b. **Akpotrobi: Yó! òsòkóará nì wó.**  
 Frog Yes! Everyone PRES. know 2SG  
 Frog: ‘Yes, everyone knows you.’

Comparable to the first two interrogative particles, *ńté* occurs clause initially, and its use in a communicative situation is similar to the two which have already been discussed. They are used among peers, and also by adults when addressing a younger generation. The data for the study however indicate that there are no age constraints with regard to the use of polar interrogatives said on a sharp drop falling intonation.

### **Conclusion**

The paper has described the formation of Lete polar interrogatives and the social norms that govern their use in Lete discourse. In the formation of the polar interrogatives, the paper has illustrated the use of a sharp falling intonation as the commonest strategy. Aside, the sharp falling intonation combines with question tags and also with interrogative particles to produce polar questions. The paper has further demonstrated that contrary to acclaimed cross-linguistic conclusions with regard to the use of intonation pattern, that polar questions are largely marked by a rise in intonation pattern, Lete polar questions are rather signaled by a sharp drop in intonation. Furthermore, the paper has hinted that the use of polar questions in Lete discourse is governed by social norms. In a communication situation with adults, a child may use a polar question which is signaled by a sharp drop in intonation, but not those signaled by question tags and question particles. However, in a communication situation where all the participants are peers, all the 3 forms described may be used. Similarly, adults are free to address younger participants, using any of the three types. We conclude that the use of intonation in forming polar questions seems to be common cross-linguistically, but what differs across languages is the intonation pattern.

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### Abbreviations

COP	copula
DEF	definite
DEM	demonstrative
FOC	focus
INDEF	indefinite
IP	interrogative particle
NEG	negative
PL	plural
POSS	possessive
PERF	perfect
PRES	present
PROG	progressive
PST	past
1/2/3PL	1 <sup>st</sup> /2 <sup>nd</sup> /3 <sup>rd</sup> person plural
1/2/3 SG	1 <sup>st</sup> /2 <sup>nd</sup> /3 <sup>rd</sup> person singular



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