# THE PROSODY OF QUESTIONS IN IRAQW* 

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Iraqw, a northern Tanzanian Southern Cushitic language, is prosodically a two level-tone language, with a simple H and L tone inventory. In syntactic typology, it is an SOV language. The deployment of tone is here investigated in interrogative Iraqw sentences, focusing on Yes-No, Wh- and Complementary questions. In Iraqw, a question is (a) generally characterised by a question particle suffixed to the penultimate lexical word and (b) prosodically specified as a 'Wh-question', 'Yes-No question' or 'Complementary question'. Questions of the first type end with a LH prosodic pattern; the second with the opposite pattern, HL, and the third with either LH or HL, accompanied by a raised overall pitch setting.

## Introduction

Iraqw is generally classified as a Southern Cushitic language of the Afro-Asiatic family (see, for example, Greenberg (1963), Ehret (1980), Elderkin and Maghway (1992). ${ }^{1}$ The language has approximately over 400,000 speakers ${ }^{2}$. Phonologically, Iraqw is a non-stress language. For syllable prosodic contrast, Iraqw relies upon pitch and duration instead. Iraqw is, therefore, a tone language. According to syntactic typology, the language is characterized typically by the placement of the verb after the object in its basic word order (BWO); it is, therefore, an SOV language $(1-4)$. As $(5 a)-(9 a)$ below, however, SOV is not the only permissible order. Only the H tone is marked in all examples.

1 garmaa slee ga dáaf.
Boy/son cow will bring back (home)
The/a boy/son will bring the/a cow back (home).
2 gármaa slee daafaang.
Boy/son cow bring back (home)
Boy/son, bring the/a cow back (home).
3 garmaa slee ngaa dáafii?

[^0]> Boy/son cow has bring back (home)
> Has the/a boy/son brought the/a cow back (home)?
> garmaa slee ngaa daaf.
> Boy/son cow has brought back (home)
> The/a boy has brought the/a cow back (home).

This paper focuses principally on the prosodic behaviour of different types of interrogative sentences in the language. Here consideration of 'prosody' is limited to only the use F0 or fundamental frequency in syllable prominence for the purpose of distinguishing interrogatives from other types of sentence in Iraqw. The paper is divided into four Sections. After this introduction, Section 2 takes a general look at questions in Iraqw, examining three main question types. Section 3 studies the prosody of questions in the language: the prosody of Yes-No questions, 'Whquestions' and Complementary questions. The last Section is the conclusion. Available literature indicates that this is the first study of its kind on Iraqw.

## Questions in Iraqw

Let us begin by characterizing what will be understood in our discussion by the term question in general in the discussion in the Sections that follow. Specifically, we shall consider only three types of question: yes-no question, 'wh-question' and complementary question. Crystal (1991) provides an apt launching pad for the task of delimiting those terms for the purpose of our usage here. Writing of English, Crystal (1991:287) states that $a$ question is [syntactically] a sentence with inversion of the SUBJECT and first VERB in the verb phrase. Such a definition is inapplicable in Iraqw, which is - in any case - an SOV language while English is typically SVO.

|  | S V |
| :--- | :---: |
| English | a/the man has built a/the house. |
| Iraqw | hee do' gwaa tléehh |
|  | S O |

As a sub-classification of question, a 'yes-no' question is one where a grammatical reply would have to be of the type yes or no (Crystal, 1991:385). We shall take Crystal's definition also as an instructive one here. Typical examples in Iraqw would be the variations in (5) - (9) (where S is Subject; V is Verb; O is Object, and Qp is question particle or suffix). The low tone syllable of the Yes-No question suffix particle may be short or long.

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|  | S O V |
| :---: | :---: |
| 5 | hee do' gwaa tléehhii? person/man house has build-Qp has the/a man built the/a house? |
|  | S V O |
| 6 | hee gwaa tléehhii do'? person/man has build-Qp house has the/a man built the/a house |
| 7 | V S O <br> gwaa tléehhii hee do'? has build-Qp person/man house has the/a man built the/a house? |
| 8 | V O S gwaa tléehhii do' hee? has build-Qp house person/man has the/a man built the/a house? |
| 9 | $\begin{array}{lll}0 & V & S\end{array}$ do' gwaa tléehhii hee? house has build-Qp person/man has thela man built thela house? |

As can be seen, there are various word-order possibilities for a question in Iraqw. This can also be compared with the various word-order possibilities for the corresponding declarative sentence in $5 \mathrm{a}, 6 \mathrm{a}, 7 \mathrm{a}, 8 \mathrm{a}$ and 9 a ). The answer to each of the questions above would be 'ee - "Yes" or 'a'a - 'No"; hence each of them meets the basic criteria of a 'Yes-No' question.

5a hee do' gwaa tléehh.
person/man house has build
the/a man has built a/the house.
6a hee gwaa tleeehh do'.
person/man has build house
the/a man has built a/the house.
$\begin{array}{lccc}\text { 7a } & \text { gwaa tléeh } & \text { hee } & \text { do'. } \\ & \text { has build } & \text { person/man } & \text { hous }\end{array}$
the/a man has built a/the house.
8a gwaa tléehh do' hee.
has build house person/man
the/a man has built a/the house.
9a do' gwaa tléehh hee.
house has build person/man
the/a man has built a/the house.

It is clear from the above examples that there are no 'subject-verb inversions' as in English or any other word order differences between Yes-No questions and corresponding declarative sentences. The only structural difference between the two is that the question contains a Question particle or suffix on the lexical verb, -ii, in this case.

What is referred to in English as a 'wh-question', on the other hand, refers to a question beginning with a question word - in English, a wh-word: 'who/whose, what, which, why, when, where, how - (Crystal 1991:379). Since there are, naturally, no 'wh-words' as such in Iraqw, we have to specify what we mean by a question word in that language. What corresponds to 'Wh-question' in Iraqw will normally end with a question word like those in the sentences listed in (10). For each, a corresponding typical Wh-question in English is given immediately after it. It is therefore such questions containing an overt question word, or sometimes without an overt question word, that we shall be concerned with here.

10 a) hee wî 'a heemá?
person this is who "who is this (person)?"
b) gaa ráa/ri' 'a milá'umós? thing this is what "what is this (thing)?"
c) qaymoo te'áa/te'é e' 'a gaalá? farm mine is which "which one is my farm?"
d) 'awaa/'awee 'a magá'? bulls are how-many "how many bulls are there?"
e) na/aa//na/aay 'a 'idoomá? child is in-what-condition "how is the child/baby?"
f) 'aa'aa/'aa'i' 'a xaylá?
journey is on-what-day "when is the trip?"
g) qateemaa/qateemoo 'a daqmá? time-to-sleep is at-what-time "when is bed time?"
h) doy/do' 'i diimá? house is at-what-place "where is the house/home?"

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i) 'ámta keer/'amór ta keer 'a 'a(moo)má? place-where-you're-going is where "where are you going?"
j) 'ámtaa kéer/'amór taa kéer 'a 'a(moo)má? place-where-you're-going is where
"where did you go?

Complementary question is a much less straightforward notion to characterize let alone define. Even Crystal (op cit) does not attempt to give a definition for it. However, Bolinger (1978) does give (11) and (12) as examples of such a subclassification of question (p. 503).

11 His reason being?
12 Your name?
Examples (11) and (12) enable us to deduce that such questions are incomplete sentences awaiting answers to complete or complement them; and the answer would normally be a complement of some kind (eg that he was ill for (11), and John Hamisi for (12).

We shall therefore take (13) - (18) as typical examples of complementary questions in Iraqw.

13 'ar gí daabá?
it-is-for meaning "for the reason/so that/because?"
14 kurmoo nee? hoe and "a hoe and?"
15 laarí tay? today until "today till?"
16 'irii 'ó'?
(afterwards)-3-f-pst say "(and) she said?"
17 diinkwaaroo?
as-a-gathering-when-considered "total?" cf diinkwá aroo? ("all of them together?" i.e. rather than singly)

The important question here is, perhaps, what is responsible for turning such incomplete sentences into questions? In the structure and orthographic form of each there may be a question particle and, obviously, there is also a question mark at the end. In their spoken form there is no doubt that prosody plays a crucial role in enabling the speaker to signal to the hearer that the sequence of words he is now uttering amounts to a Complementary question - just as it plays a crucial role in enabling him to signal the difference between such questions and any other types of
sentence function. It would therefore be the second part of our task to see what such signals are, specifically, the prosodic ones.

## The Prosody of Questions in Iraqw

Our data is in three parts, corresponding to the three types of question investigated. For both the Yes-No and Wh-questions, the data consists of transcriptions of prosodic patterns for sets of contextless utterances and utterances from a narrative text. However, for Complementary questions, we have only transcriptions for contextless utterances. Let us consider the Yes-No questions first.

## Yes-No questions

Contextless examples of Yes-No questions in our data consist only of simple single clause questions. Typical ones include those like (18) and (19) below, with their pitch patterns indicated.


18 hee do' gwaa tléehhii?


19 sleeri' 'a te'éenéekee?
"Isn't this cow mine?"

The Yes-No questions from the narrative text are of a more varied grammatical structure than those from the contextless data. There are questions consisting of nothing but the verb phrase, such as (20). But there are also questions consisting of one clause with Subject, Object apart from the Verb, such as (21). Others, like (22), consist of more than one clause.

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22 'aaraa biindaa hardihìr r 'adó otar 'ilaawatsi déeroo?
"when the goats arrive, you think you can say anything?
The pitch patterns in Yes-No questions, as portrayed by the above, have one obvious characteristic feature in common. In a Yes-No question in Iraqw, the penultimate syllable of the last lexical word will have a H tone; to that last word is then added what we might refer to as a question particle or suffix (see Qsuffix in 23-27 below), which is a long or short monosyllable with a L tone. The

[^1]characteristic prosodic feature of an Iraqu Yes-No question is therefore that it ends in $\mathrm{H}(:)+\mathrm{L}(:)$ - a high tone short or long syllable immediately followed by a low tone short or long syllable. In continuous normal speech this may be perceived as a fall. This can be seen more clearly in (23) - (27) where, in each pair, the Yes-No question form can be compared with the declarative form indicated after it.
sleerî' 'a te'ée'.
cow-this is mine "this cow is mine."
26 kaangwgwî' 'oo qoo ló'e?
affair-this is intensifier true-Qsuffix "is this information really true?"
kaangwgwí 'oo qoo ló'.
affair-this is intensifier true "this is information is really true."
27 damar'ée' 'a gaa 'á andii?
heifer-my you-have see-Qsuffix "have you seen my heifer?"
damar'ée' 'a gaa 'aandé'.
heifer-my you-have see-pst
"have you drank some/the water?"
"you have drank some/the water."
"is that house (near you) yours?"

$\begin{array}{ll}\begin{array}{l}\text { water you-have drink-Qsuffix } \\ \text { ma'aay 'i gaa wát. }\end{array} & \text { "have you drank some } \\ \text { water you-have drink } \\ \text { do'sí ng 'a kó ge? }\end{array} \quad$ "you have drank some
$\begin{array}{ll}\begin{array}{l}\text { water you-have drink-Qsuffix } \\ \text { ma'aay 'i gaa wát. }\end{array} & \text { "have you drank some } \\ \text { water you-have drink } \\ \text { do'sí ng 'a kó ge? }\end{array} \quad$ "you have drank some
ma'aay 'i gaa wá t.
water you-have drink
do'síng 'a kó ge?
"isn't this cow mine?"
heifer-my you-have see-Osuffix
-
"you (pl.) have seen my heifer."

In (23) - (27) the Qsuffixes are, respectively, -i, -e, -nee/kee, -e, -dii. The pitch pattern of the rest of the Yes-No question does not reflect any particular characteristic which might be associated with that sentence function. In other words, apart from the $\mathrm{H}+\mathrm{L}$ ending, the lexical tones of the rest of the question generally retain their high or low tone character of the lexical pitch pattern.

## Wh-questions

Our data for Wh-questions includes questions with or without an overt question word or 'wh-word'. The former situation is portrayed by our examples provided in (24), (25), (28) and (29) below. The basic or phonemic shapes of the wh- or question-words, 'amá (where), gaalá (which), xaylá (when), heemá (who), diimá (which place), are: /Ramá/, /ga:lá/, / $\quad$ ajlá/, /he:má/, /di:má/.

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28
'amór 'i kay 'a 'amá?
$\qquad$
$\qquad$
qaymoo te'ée' 'a gaalá?
"which is my farm?"
"when is the journey?"
"whose house was that?"

There are also many other similar questions in which there is, however, no overt question word or 'wh-word'. These are questions like those in (32) - (34).

gár kuwaa sla'?
for?"
"what do you want him/it-m.

na/aay 'ée' mus gaamisá'
"why are you-pl. killing my child?"

misaa tlé er?
"why has she/it-fem. left?"

There are certain prosodic patterns which appear clearly to correlate with 'Whquestions'. A typical 'Wh-question' in Iraqw, if it ends with an overt question word, will manifest an $\mathrm{L}+\mathrm{H}$ prosodic structure (on separate syllables) at its end (as in (24) - (27) and (29) - (32)). Exceptions to that occur when there is elision of the question word, as in (28), (33) and (34), where there is a prosodically flattened low ending.
hée do' gwaa tleehh 'a heemá? "who is it that built a/the house?"
garmó o qaymoo gaa doosl 'a gaalá? "which is the boy who hoed a/the farm?"


It is also possible for the question word to precede the Verb as in (39), in which case the final pitch pattern of the Yes-No question would be $\mathrm{L}+\mathrm{H}+\mathrm{H}$, a prosodically flattened high ending. However, it is important to point out that (39) itself is a simplification (see Maghway, 1995a, for more on this) of (40), in which the final pitch pattern is in fact $\mathrm{L}+\mathrm{H}+\mathrm{L}+\mathrm{H}$.
dasi 'amáa kéer?
"where has the girl gone?"

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$\qquad$ "where has the girl gone?"

## Complementary Questions

As already pointed out, our investigation only included a set of contextless complementary questions. These tend to be very short utterances, generally two to three words in length. Their grammatical structure is also quite interesting: it may sometimes consist only of a verb phrase (for example, (41) and (42).


It may also consist of a clause made up of a noun and the copula (eg (43), or some other combinations, as in (40) and (41).
'umuu wók 'an?
"(and) your name is?"

The speaker could, of course, have sought the same information sought by (43) with explicit Wh-questions like 'итии wo' $k$ 'a heemá? - "what is your name?" or 'итии wo'k'an heema'? - "what did you say your name was?" Interestingly, (43) could also be said with a flattened $\mathrm{H}+\mathrm{H}$ ending in a kind of marked complementary question implying 'You said your name was?'.
"a/the hoe and (what else)?"

Once again, the non-linguistic and probably also the linguistic context enables the speaker of (44) to omit the rest of the full question, which might be gár ta sla' 'a kurmoo nee mila'? - "what you want is a hoe and what else?" or "you want a hoe and what else?"

"so as?" or "meaning?"
If the speaker of (46) had chosen to seek the same information sought by that complementary questions by using a Wh-question instead, he could have said gídaabárós 'a mila? - "what does that mean?" or 'asma (milá)? - "why?"; or "what did you/he/she do that for?"' or something similar.

A complementary question may also consist of just an adverb, like (46). It is, of course, understood that the full meaning of the question is something like how many of them are there altogether? In a sense, therefore, one might be justified to regard a complementary question as a kind of simplified Wh-question.


A salient feature in the prosodic structure of complementary questions is that they are spoken on a generally more raised pitch setting than, say, a declarative or some other type of utterance in their neighbourhood. That means, in musical terms, a complementary question would be spoken on a 'higher key' than a preceding or following statement in the same discourse. Therefore, although we have other corresponding H or L tone syllables in such a sequence, they are not spoken at the same pitch height. In order to appreciate this, we need only juxtapose the pitch patterns of the complementary question in (47) with the statement in (47a).

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niwaa hardá t?
ninaa hardát.
"(when) she/it-fem. arrived?"
"([and] so) she/it-fem. arrived...?"

Even when the complementary question contains only L tone syllables (as in (44) or (46) above), the overall setting of the pitch is perceived to be clearly closer to the Mid level than to Low.

## Conclusion

Our principal task in this paper has been to attempt to answer the question: What prosodic characteristic(s) in a given utterance in Iraqw signal(s) to the hearer the fact that what he is hearing at that point is a question? In other words, are there any prosodic signals that prompt the hearer that the utterance $\mathrm{s} / \mathrm{he}$ is hearing requires a response that supplies some sort of an answer or information sought in the utterance $\mathrm{s} / \mathrm{he}$ hears? If there are such signals, what is their nature?

In Iraqw, a sentence that functions as a question has an interrogative morpheme or particle that is a bound form suffixed to it. A question in Iraqw will contain an interrogative or question prefix that is suffixed on the rightmost (i.e. final in speech) lexical word in Yes-no questions; an overt question word in Wh-questions, or it may end with a form of the copula verb in complementary questions.

The prosodic structure of questions in Iraqw depends on the type of question. Question prosody generally ends high - i.e. LH in a Wh -question (a question that ends with a question word, which is responsible for the final H). Prosodically, YesNo questions end with a pattern opposite to that found in Wh-questions, namely, HL. Like Yes-No questions, Complementary questions also end high: LH; sometimes Low: HL, and sometimes flattened low: LL - but with a raised overall pitch-setting.

Since this study is limited to only a small body of data obtained from a particular narrative text analysed and a small corpus of reconstructed utterances, the conclusions reached here need corroboration from studies based on similar but enlarged bodies of data as well as other types of Iraqw data. If nothing has been said with regard to intonation in the preceding pages, it is not by accident but due to
the fact that the need has not arisen to invoke it: the prosodic patterns described and discussed appear to depend upon the lexical tones of the words concerned.

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[^0]:    * This article is based on research conducted during a fellowship year sponsored by the Japan Foundation in 1994/1995.
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[^1]:    ${ }^{3}$ The abbreviations m., fem., pl., L and H together with the symbol [' ] appear here with the meanings shown below.
    m. - masculine gender
    fem. - feminine gender
    pl. - plural (cf Sg for Singular) person number
    L - low tone
    H - high tone
    [ ${ }^{\prime}$ ] - high tone (only the high tone syllables are marked; the absence of
    a tone mark means that the syllable has low tone)

