

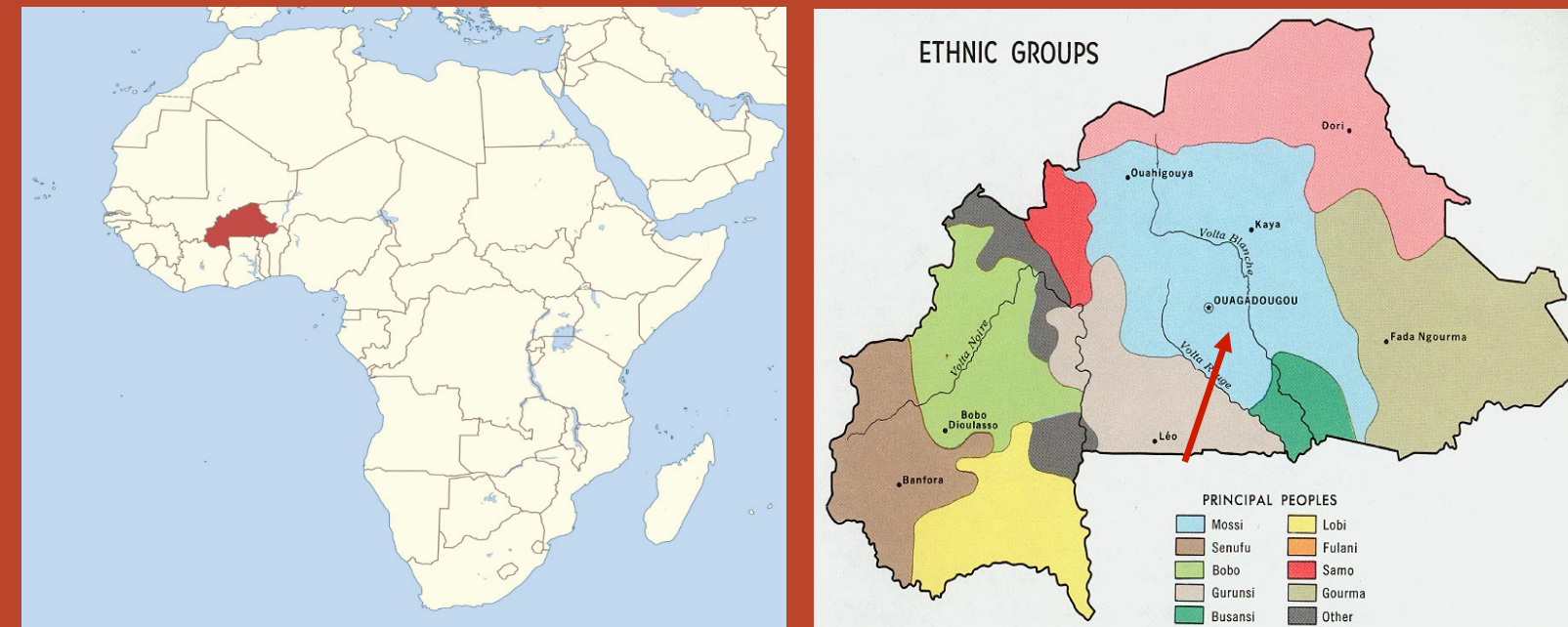
Describing Mòòré, a language of Burkina Faso

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INTRO Mòòré: the language of the Mossi people

Mòòré is a Gur language spoken by the Mossi people, the largest ethnic group of Burkina Faso (40% of the population, approx. 5 million people) (Lewis *et al.* 2014). They live mostly in villages around the Volta River Basin.



According to legend, the Mossi come from the marriage of a Mamprusi princess and a Mandé hunter. They gave birth to the first Mossi, Ouedraogo, who is considered the father of Mossi. The Mossi place high value on family, land and ancestors. In family, the Mossi believe in a collectivist approach to community, in which the behavior of one member is seen as the behavior of the entire family.



Our project aims to provide a description of Mòòré starting from the smaller units (i.e. sound inventory) up to the larger ones (sentence structure). Most of the previous work on Mòòré is in French. We seek to: (i) make a contribution to the general knowledge about the structure of this language; (ii) develop a resource for typological work on Gur languages; and (iii) give non-French-speaking scholars access to the Mòòré language.

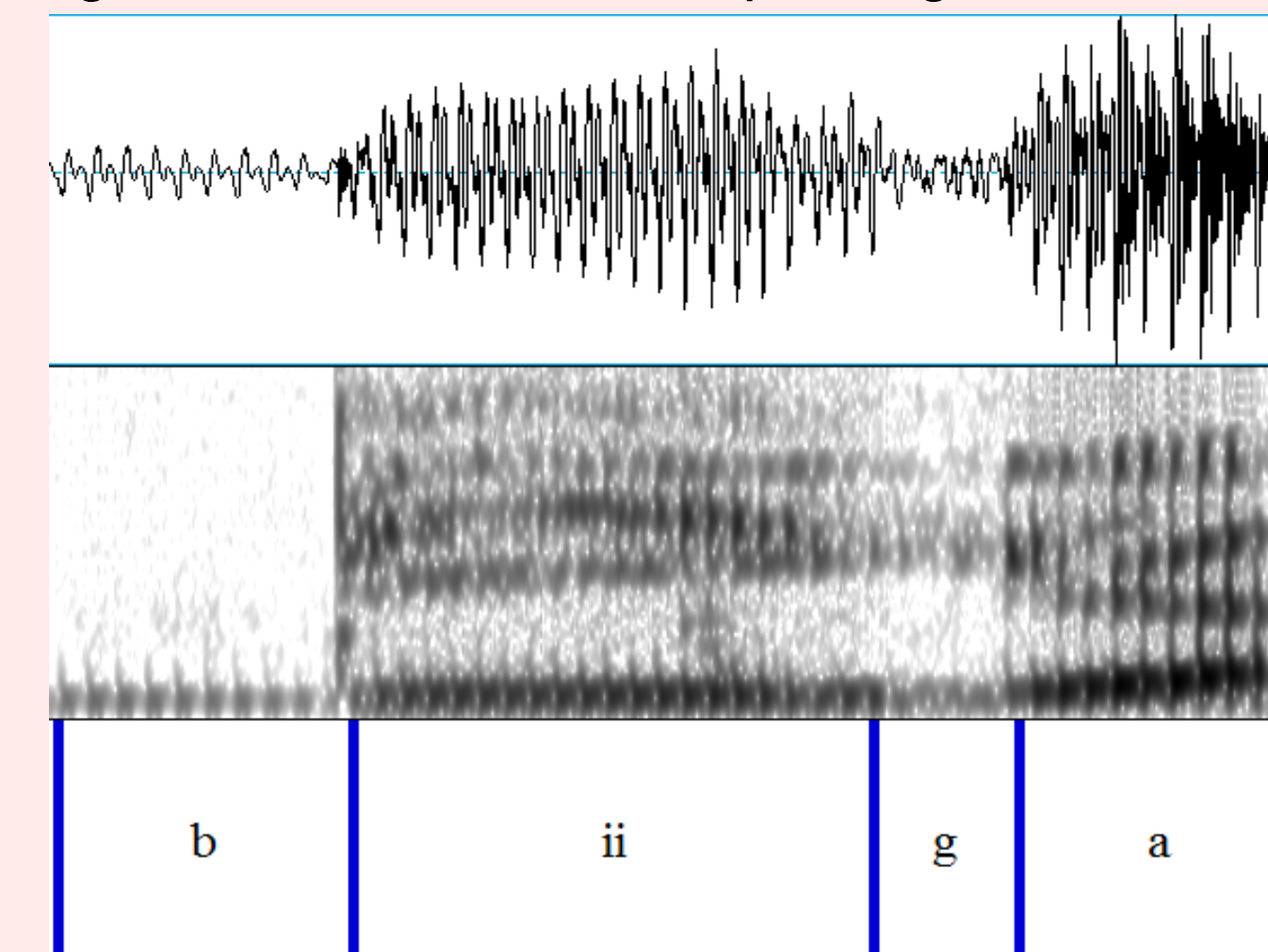
ACKNOWLEDGEMENTS:

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1 Representing the sounds of Mòòré How can we visualize speech?

Human speech can be 'visualized' by a waveform and a spectrogram. A waveform shows the energy of the sound wave. A spectrogram is a representation of the spectrum of frequencies of sound waves in the vocal tract when a word is produced. Figure 1 is a visualization of *bīigá* 'child' in Mòòré.

Figure 1: Waveform and spectrogram of 'child'



Mòòré is also a tone language. This means that each vowel in a word has a distinctive pitch, which can be high (H) or low (L). The H tone is indicated with the acute accent *á*, and the L tone with the grave accent *à*. Two words can be identical in shape but their meaning can vary if their tone melodies are different, as in the following examples:

HH <i>báásé</i> 'dog'	HL <i>báàsè</i> 'finish'	LH <i>zâgsé</i> 'houses'	HL <i>zâgsè</i> 'to water'
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2 Sounds of Mòòré How many vowel sounds does Mòòré have?

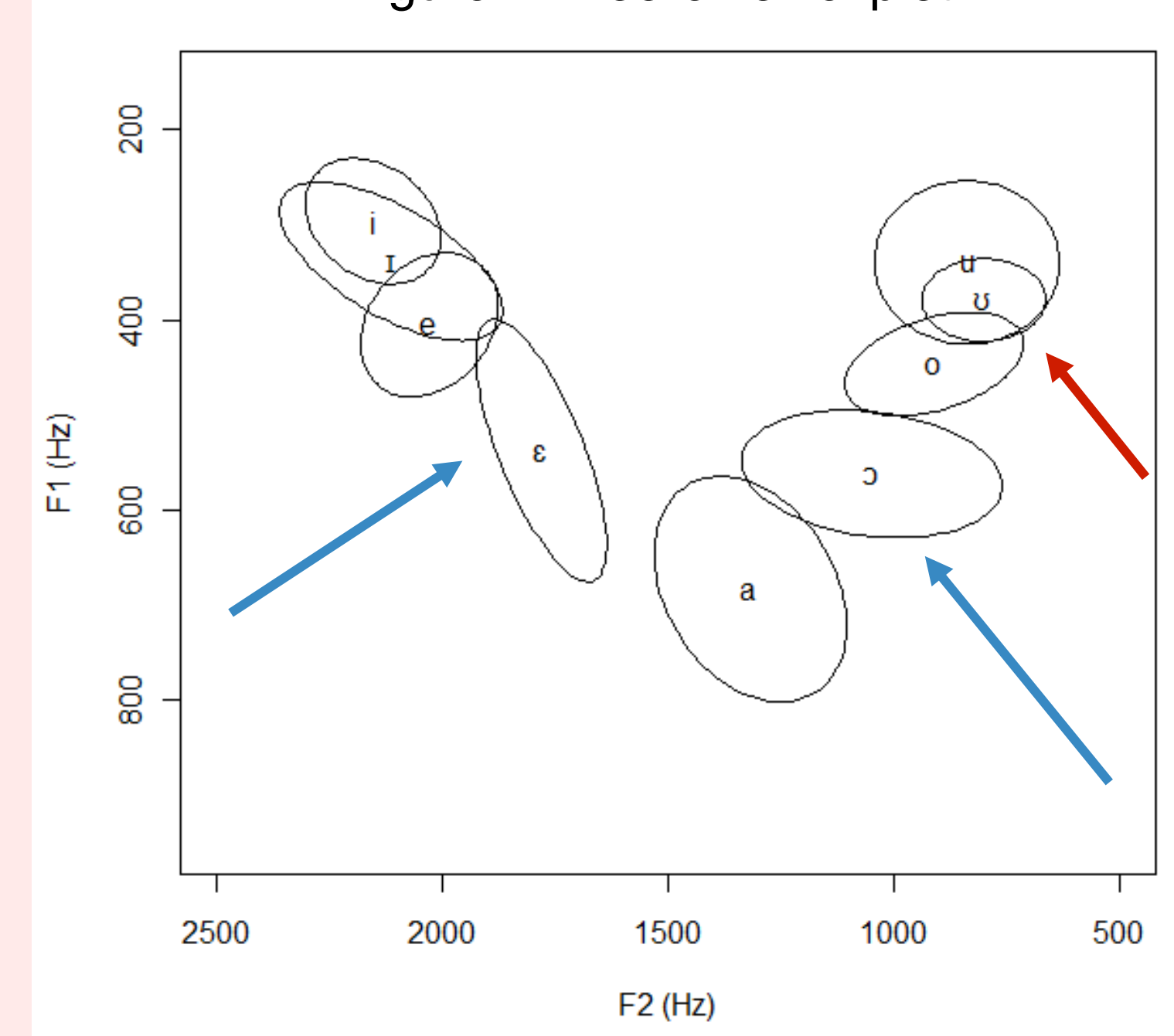
This graph represents a speaker's acoustic vowel space. The x-axis corresponds to how far front or back the tongue goes when making the vowel. The y-axis corresponds to how close the tongue is to the roof of the mouth (palate).

Mòòré has at least 7 vowel sounds: /i/, /ɪ/, /e/, /a/, /o/, /ɔ/ and /u/ (Canu 1976, Nikiéma 2000). These are contrastive: if we change one with the other within a single word, the meaning of the word changes:

<i>tú</i>	'dig'
<i>tó</i>	'insult'
<i>tó</i>	'another'

The **red arrow** in Figure 2 points to the position of these three vowels /u ɔ o/ in the vowel space. We are still investigating whether there is a contrast between /ɛ/ vs. /e/ and /ɔ/ vs. /o/. These vowels are signalled by the **blue arrows**.

Figure 2: Mòòré vowel plot



5 Research significance

We have shown different aspects of the Mòòré language, sound inventory (phonetics), shape of words (morphology) and sentence structure (syntax), but more data collection and analysis await. Our scientific investigation increases knowledge of a relatively under-studied language family (Gur). Importantly, this feeds directly into literacy development and the improvement of the current Mòòré writing system on which many controversies exist. As a result, our research contributes to the education and production of cultural materials for the language community. Finally, it shows to speakers of Mòòré the importance of their language and the cultural knowledge embodied in it for the scientific study of human language in general.

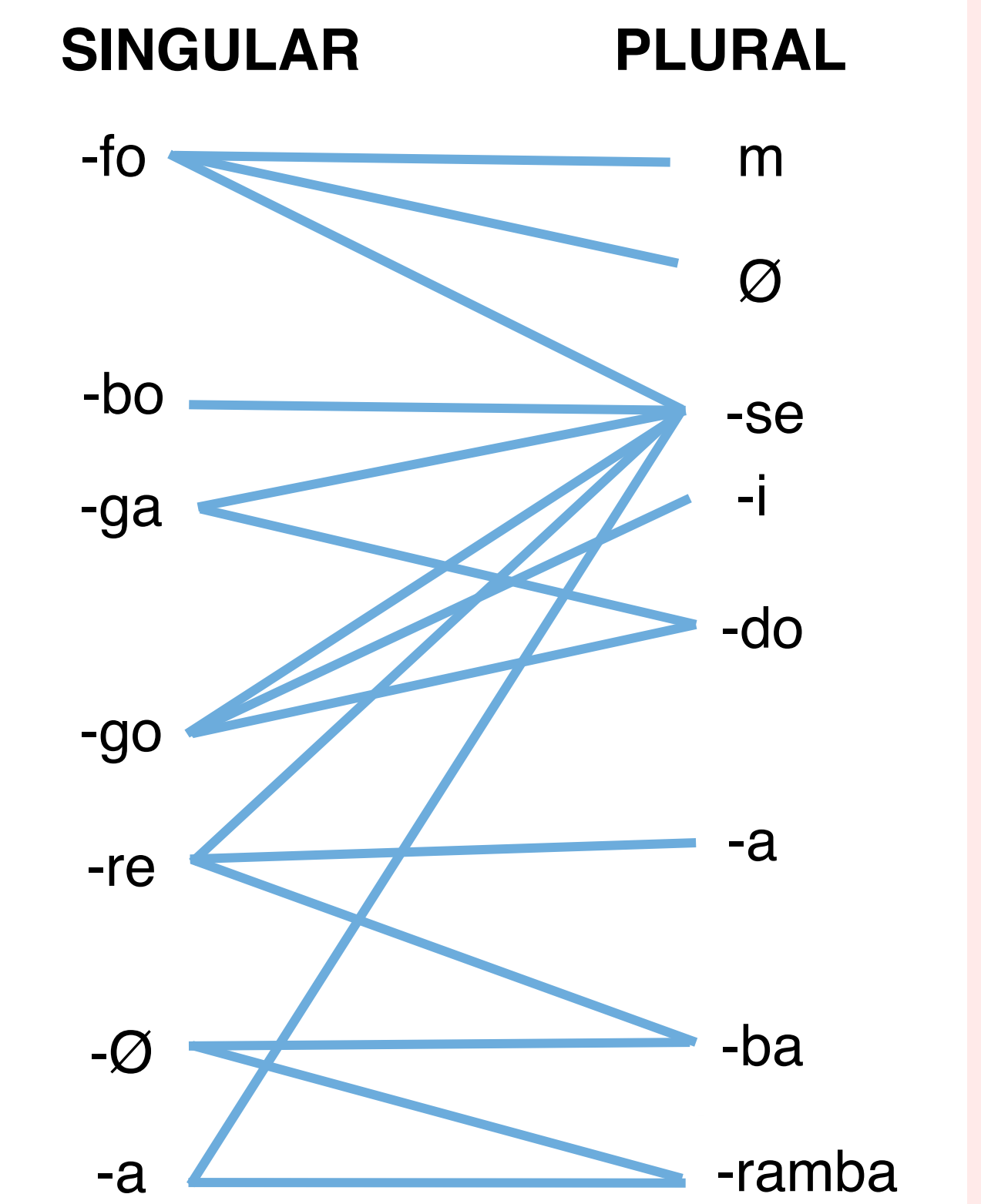
3 Building words in Mòòré How do you make a plural in Mòòré?

In English, many words can be made plural by adding *-s* at the end, as in *cat/cats*. In Mòòré if a word is singular, it can end in any one of 7 different singular forms. If the word is plural, a speaker must choose from 8 different plural endings. Take a look:

SINGULAR	PLURAL
<i>wób-gò</i> elephant-SG	<i>wób-sè</i> elephant-PL
<i>báá-gá</i> dog-SG	<i>báá-sé</i> dog-PL
<i>pònd-ré</i> frog-SG	<i>pònd-á</i> frog-PL
<i>pág-á</i> woman-SG	<i>pág-bá</i> woman-PL

Figure 3 shows all possible singular and plural matches.

Figure 3: Mòòré singular and plural forms



4 Building sentences in Mòòré How do you say it all in one word?

To build a Mòòré sentence, you follow the same order as English, Subject-Verb-Object (as in the English sentence 'She ate bananas').

<i>màm</i>	<i>tóg-s-d-à</i>	<i>fóó</i>
I	tell-FL-PRESENT-FINAL.VOWEL	you
'I am telling you.'		

However, Mòòré has a second option. You can include the object inside of the verb, but the ending of the verb also changes:

<i>màm</i>	<i>tóg-s-d-f-là-mè</i>
I	tell-again-PRESENT-you-AFFIRMATIVE-END.OF.CLAUSE
'I am telling you.'	

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