

Stress in Standard Swahili

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1. Introduction

The word 'stress' generally means the greater force exerted in the articulation of one part of an utterance compared with another, thus accentuating that certain part of the utterance, giving it more prominence. In Swahili, when a word or phrase is pronounced in isolation, stress is realised on the penultimate syllable.

Examples:

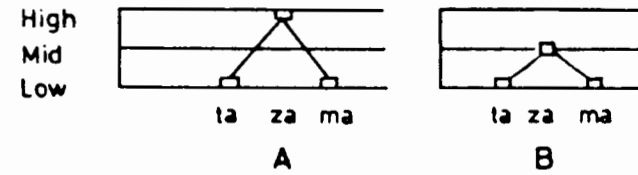
piga (hit) [ˈpi-ga]	imba (sing) [iˈmba]	mtu (person) [ˈm-tu]
tazama (look at) [ta-ˈza-ma]	waite (call them) [wa-ˈi-te]	
anacheza (he is playing) [a-na-ˈtʃe-za]	walimpa (they gave him) [wa-li-ˈm-pa]	

It is now generally agreed that stress is manifested by pitch (fundamental frequency), force (intensity) and duration (time), but how these parameters combine to produce stress in Swahili still needs to be examined.

2. Stress parameters

2.1. Pitch

This term is used to describe a high or a low frequency of vibration of the vocal cords. The syllable -ba- can be pronounced in many pitch levels but in actual normal speech the syllables of Swahili can be said to belong to three general pitch levels i.e. high, mid (normal) and low, while other syllables have a rising pitch or a falling pitch. Stress can be manifested by a higher pitch of a given syllable in relation to the others appearing together in the same utterance.

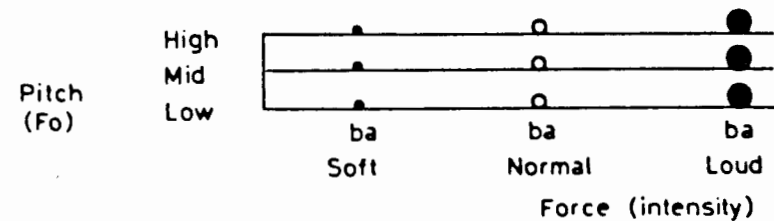


In the above diagram the second syllable in each group can be taken to be stressed as it has a higher pitch in relation to the others. A subsidiary question can now be asked, Is pitch the only manifestation of stress in Swahili? Before an answer is sought, the other parameters must be examined.

2.2. Force

A syllable can be produced loudly (i.e. with greater intensity), normally or softly (i.e. with less intensity) in relation to surrounding syllables. A syllable produced with more force in relation to the others around it is louder and hence is heard more clearly. The question is whether a stressed syllable in Swahili is associated with greater force. From the definition of stress one would say that naturally if a syllable is stressed then it must be produced with greater force. However, if a combination of force and pitch is made one could also argue that it is possible to produce a syllable with normal force but with a high pitch and still produce the effect of 'stress'.

Let a dot be selected to represent a softly pronounced syllable and a larger circle to represent a loudly pronounced syllable. Let us also assume there are three pitch levels in Swahili. One could then come up with a picture such as the one below showing the possibilities of pronouncing the syllable /ba/ with force.



2.3. Duration

Any sound takes time to be produced and in the case of syllables one can measure their duration in (milli) seconds. If a syllable takes longer to be produced, one could say that it is longer than the other. In Bantu languages it is customary to talk of long and short syllables, so in this case we shall assume that the syllables in Swahili are either short or long. The question then is whether a stressed syllable is longer than its unstressed counterpart.

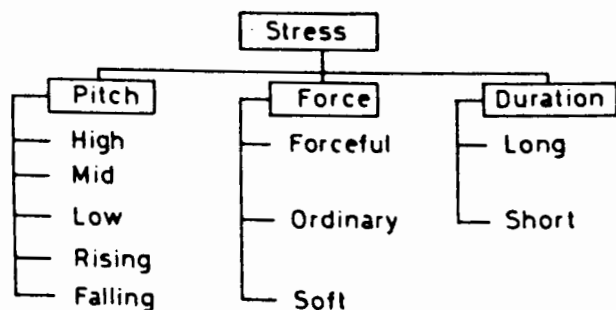
Ashton (1947:5) stated that 'stress accompanied by length and a falling tone lies normally on the penultimate syllable of a word or phrase'. The author thinks that by 'stress', Ashton meant both 'pitch' and 'force'. The author thinks that length is part and parcel of 'stress' in Swahili.

3. Discussion

If we now synthesize the three parameters the picture becomes a bit more complicated and the third question to be posed in respect of Swahili stress becomes relevant, and that is: To what extent does syllable length (duration) play a part in the manifestation of stress in Swahili?

At this stage one can speculate and say that it is most likely that a stressed syllable has a higher pitch, is more forcefully produced and has a longer duration. However, as stated earlier, this statement needs proof based on results of actual measurements using phonetic instruments such as the sound spectrograph, the intensity meter, the fundamental frequency meter and even a computer. The second main question of practical importance is: What signs or symbols should be used in order to explain and to teach Swahili stress, rhythm and intonation? When such symbols are used one must take into consideration the simplicity of writing and printing and the probability of acceptability of those signs for the speakers and learners of the language.

4.1 Summary of Stress Parameters:



4. Marking

Pitch can be shown by the placement of the mark between two lines so that the mark is on the upper level for a high pitch and on a lower level for a low pitch. In the case of force, a dot can signify a soft syllable while a heavy bigger circle shows a forceful syllable, leaving an ordinary unshaded circle to signify a syllable produced with normal force. The problem lies with the choice of a symbol for showing syllable length, rising or falling tone. Would the following symbols be acceptable?

- E A high falling forceful syllable
- E A low rising soft syllable
- E A high long forceful syllable
- E A high short forceful syllable
- E A high short soft syllable etc.

References

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