

Московский Государственный Университет имени М.В. Ломоносова
Институт стран Азии и Африки

Санкт-Петербургский Государственный Университет
Восточный факультет

ЯЗЫКИ СТРАН ДАЛЬНЕГО ВОСТОКА, ЮГО-ВОСТОЧНОЙ АЗИИ И ЗАПАДНОЙ АФРИКИ

Материалы XIV Международной научной конференции

Москва, 23–24 ноября 2020 г.



LESEWA

Издательство «Ключ-С»
Москва, 2020

SENEGALESE SABAR – IS IT A DRUM LANGUAGE?

Abstract

Current research focuses on the Senegalese drum language – Sabar. Sabar rhythms are derived from speech in Wolof and therefore represent verbal utterances. This paper reports a study that is meant to uncover regularities between Wolof units and Sabar strokes given a dataset collected in Senegal. Research materials include drum and speech recordings collected during field trips to Senegal. This data is analysed, and the first analysis is presented in the article.

In some African cultures, drumming is used for expressing linguistic meanings. For example, the Yoruba people of Nigeria use different drums to mimic the spoken Yoruba language (Villepastour – 1988), in Ghana drumming was widely used among the Akan people to express the spoken Akan language (Nketia – 1963).

Our research focuses on the Senegalese drum language – Sabar. Senegalese drummers show the practice of playing drums in correlation to speech. These drummers are part of the social class of *griots* (Hale – 1998, Tang – 2012), and their most common drum is a single-headed drum known as *sabar*. Griots are generally known as the masters of the spoken word and unlike griots from other ethnic, Wolof griots are also masters of the *sabar* drum. In Senegal, *sabar* drumming appears in different sorts of events such as sport events, life-cycle ceremonies, political events. Rhythmic phrases played on the *sabar* drums are originated from speech in Wolof, so that the drums “speak” through rhythmic representations of linguistics meanings (Tang – 2012).

Although now *sabar* drums are rarely used as a speech surrogate and their main function is to affect the listener rather than to convey a message, it is clear that the practices of playing the *sabar* still involve a close connection to linguistic expressions. In personal interviews griots say that “the *sabar* can speak” and utter spoken expressions in correlation to *sabar* rhythms they play (Winter – 2014).

The main question of my research is whether the drum language can be considered to be a language (from a linguistic point of view). If *Sabar* can be considered to be a language, my main goal in the current research is to understand how this language works. Mapping between *Sabar* and Wolof is not as clear as in more well-known cases of speech surrogacy on drums. For example, spoken Yoruba has three contrastive tones: high, low and middle, and tone counters formed by a combination of two of the tones. The tones and counters of spoken Yoruba can be represented by the notes of the Yoruba drums, so the drums literally mimic the spoken utterances. Rhythms and tones produced on *atummpan* – “talking” drum used by the Akan people in Ghana – also closely correspond to the rhythms and tones of the Akan language. *Sabar* clearly works different as Wolof is not tonal.

Playing the *sabar* involves at least 9 different drum strokes (hand strokes, stick strokes or their combination), which can be seen as the basic phonemic units of the genre (Winter – 2014). These strokes compose different longer *Sabar* rhythms which can be correlated with spoken utterances in Wolof. Research materials is the data collected during previous expeditions to Senegal: *bàkks* (classical phrases in *Sabar*, not improvised on the spot) and improvisations in *Sabar* and their translations to Wolof.

I am approaching this problem by finding out the regularities between Wolof utterances and *Sabar* rhythms. First, we tested the hypothesis on phonological mapping between the two languages, meaning that each syllable has a stroke associated to it, where the nature of the correspondence depends purely on the phonetic properties of the syllable: length, position and

openness of a vowel in a syllable. In order to test this hypothesis, the data was restructured. Wolof words were syllabified (Ka – 1988), we came up with a table where in each row there was a specific stroke, an associated syllable and its properties: length (short/long), position (front/central/back) and openness (open/middle/closed). In total there appeared to be 5454 pairs of Wolof syllables and Sabar strokes.

Some regularities have been found, for example, *la* ('you) is correlated with the 'tan' stroke (stick stroke at the center of the drum that bounces off) in 82 out of 122 cases:

- (1) Man dama la nob (Wolof)
 rwan tan tan pax pax (Sabar)
 'I love you'

Bi ('the') is correlated with the 'gin' stroke (hand stroke at the edge of the drum) in 45 cases (and only once with 'tan'):

- (2) Adduna bi (Wolof)
 tan tan gin gin (Sabar)
 'this world'

My first statistical analysis has already shown some correlations.

A chi-square test of independence was conducted between the stroke type and the *length* of the vowel in the corresponding syllable. All expected cell frequencies were greater than five. There was a statistically significant association between the stroke type and the length of the vowel in the corresponded syllable, $\chi^2(7) = 193.94$, $p < .0005$. Cramer's V of .189 might be considered to indicate a weak strength of association (Cohen – 1988).

A chi-square test of independence was conducted between the stroke type and the position of the vowel in the corresponding syllable. All expected cell frequencies were greater than five. There was a statistically significant association between the stroke type and the position of the vowel in the corresponded syllable, $\chi^2(14) = 1274.9$, $p < .0005$. The association was moderately strong (Cohen, 1988), Cramer's V = .342.

A chi-square test of independence was conducted the between stroke type and the *openness* of the vowel in the corresponding syllable. All expected cell frequencies were greater than five. There was a statistically significant association between the stroke type and the openness of the vowel in the corresponded syllable, $\chi^2(14) = 2476$, $p < .0005$. The association was greatly strong (Cohen, 1988), Cramer's V = .476.

The statistical analysis therefore shows that some regularities between Sabar strokes and Wolof syllables exist, namely the following (I have only taken out the results with absolute adjusted standardized residuals greater than 3):

Strokes' preferences for vowel length (weak association)

- gin – short
- rwan – long

Strokes' preferences for vowel position (moderate association)

- ce – front
- gin – back (and front)
- pax – central
- rwan – central
- tac – front
- tan – central

Strokes' preferences for vowel openness (strong association)

- ce – middle
- gin – closed
- pax – open
- rwan – open
- rwe – middle

tac – middle

tan – open

The association was weak for the strokes' preferences for vowel length, moderately strong for vowel position and greatly strong for vowel openness, therefore I suggest to take into account only the results for the vowel position and openness for now. These results suggest there is indeed a Wolof-Sabar correspondence that depends on the phonetic properties of the syllable.

The current analysis reveals some regularities in the data: the vowel position and the vowel openness affect the preference of an associated stroke with moderate and large strength of association respectively. A definite description of the correlation between the spoken Wolof language and the Sabar drum language will need further research, however this work already reveals some important regularities. This work and further research is expected to lead to a step forward in our understanding of drum languages the language-music connection in human cognition.

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Научное издание

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Подписано в печать 18.11.2020.
Формат 60х84/8. Усл. печ. л. 17,5.

Издательство «Ключ-С»
119180, Москва, ул. Большая Полянка, д. 7/10, стр. 3
Тел./факс: (495) 640-87-93