LANGUAGE IN INDIA

Strength for Today and Bright Hope for Tomorrow

Volume 7 : 1 January 2007

THE LANGUAGE OF RHYTHM INSTRUMENTS: A PRELIMINARY STUDY WITH REFERENCE TO "MRIDANGAM"

K. Parameswaran, M.A., M.Phil.

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INTRODUCTION

Music and Linguistics are both concerned with the arrangement of sounds and the probable as well as possible communicative characteristics of such arrangements. Hence the possibility of applying the rigorous principles of linguistic analysis for unraveling the structural particularities of music should be possible. This paper is an attempt at analyzing the language of "mridangam" and trying to reach some tentative conclusions about language use in rhythm instruments.

The theoretical justification for the paper is as follows. Linguistics, at a most basic level, can be defined as the scientific study of how man makes use of sounds to communicate. If so, music can be said to be a specialized kind of language. What are the possible areas where the science of linguistics crosses paths with the systems and practices of music?

This paper is a preliminary attempt to delineate the broad contours of such intersections.

Here, the language of mridangam, or the language of percussion instruments in Carnatic music, is analyzed and described with reference to the four basic characteristics of language. However, it is noted that an exact counter part to the semantic component in natural languages is not available in the language of the mridangam. But it has also to be recognized that meaning, as far as mridangam is concerned, is mainly dependent upon the domain and practices of Carnatic music. Hence, the relevance of meaning in the conventional sense is non existent as far as the language of mridangam is concerned. Against this background, it may also be noted that in a functional sense meaning exists in

the language of mridangam as markers of various elements of the tani avartanam etc. At the same time, as per the TG (Transformational Generative) principles, outlined by Noam Chomsky, one of the key features of any language is the ability to generate infinite constructions from finite structures. The various components of the language of mridangam, like jatis, cholkettus, koruvais etc combine together form infinite constructions.

The major conclusion of the paper is that it is indeed possible to posit the existence of the language of percussion instruments in Carnatic music.

PERCUSSION INSTRUMENTS IN CARNATIC MUSIC

Rhythm is one of the most integral parts of human beings. The 'Homo sapiens' could even be defined as an organism that inherently keeps rhythm in any repetitive activity. Why is a person who limps noted immediately? Only because his walking is not rhythmical! Why is the person who sings out of time recognized immediately? Because his singing is not set to the rhythm!

Music is one of the more prominent traits of human beings where their sense of rhythm is very clearly discernible. In fact, music can even be accurately defined as the setting up of sounds to a definite rhythm structure. The attractiveness of music evolves out of the repetitive nature of the rhythm units it contains.

Thus, as music is the euphonious organization of sounds set to rhythm, it is only natural that percussion becomes one of the important ingredients of music.

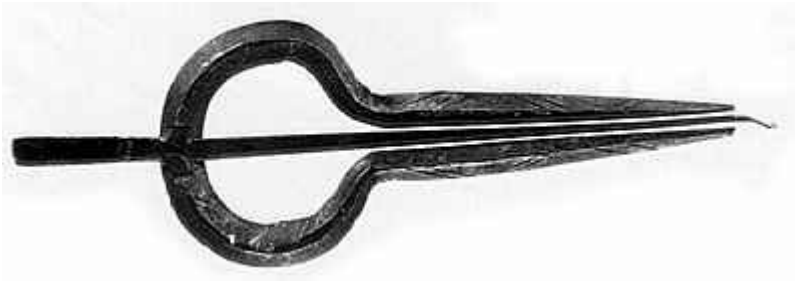
Mridangam, ghatam, kanjira and the moharsing are the percussion instruments usually used in Carnatic music. The mridangam is one of the most ancient of the musical drums of India. Basically, it refers to something with has a body made of clay – 'mrith' (clay) and 'angam' (body) in Sanskrit. It is the indispensable percussion instrument in any Carnatic music concert.

The **ghatam** is a clay pot that is played with both hands. The mouth of the pot is also used to produce special sound effects. By pressing the pot to the stomach at various angles and with varying pressure, the tonal attributes of the pot can be altered by an intrepid vidwan (an expert in music).

The **kanjira** is a small disc, covered with animal hide. It is played, held in the left hand, with the fingers of the right. However, the left hand is used to alter the pressure on the hide so that special sounds like 'gumukki' are produced. (Gumukki refers to using the

calf or the fingers of the left hand to produce a special type of sound that can reverberate to the basic tone (the "sruthi") of the singer).

Moharsing is a small instrument that is held to the mouth by the left hand, and played using the fingers of the right hand. Its range is comparatively limited but the aural peculiarities of the instruments add a vibrant element to the musical performance as a whole.



MRIDANGAM – A DESCRIPTION

Structurally, the mridangam is a barrel-shaped drum about 60 cm long with a girth of about 90 cm in the center. The ends have a diameter ranging from about 15 to 25 cm and the left end is a little larger than the right. Usually the body of the Mridangam is scooped out of a single block of wood. Jackwood, redwood or margosa wood are now used for making mridangams.

A recently discovered ancient Tamil work called Pancha Marabu prescribes, in its prose commentary, that neem wood or clay as ideally suited for making the shell of the mridangam. It also gives the precise dimensions of the instrument. The two heads of the instrument are covered with parchment. The parchments are tightened using sixteen leather braces that are interlaced. These braces traverse the entire length of the instrument.

The mridangam is aligned to the sruthi of the singer by altering the tightness of the parchments. (Sruthi refers to the basic pitch of the singer or the main artist of the performance. The pitches of all musical instruments accompanying the main artist are aligned to this basic pitch). This is done, either by placing small bits of circular wooden

pieces between the braces or by tapping on the braces with a small piece of rock at points around the circumference of the parchment, where the braces join up with the sides of the mridangam. The right head of the instrument is often tuned to the tonic and left head to the fifth. (These refer to the positions of notes on the musical scale).

The right head is made of three concentric layers of skin (calf and sheep skin) while the left head has 2 layers made of buffalo and sheep skin. The right head has a permanent black spot in its centre, composed of manganese dust, boiled rice and fine iron filings. A paste of semolina ('Bombay rava' in Tamil and Malayalam) and water is applied to the left head before every concert and the paste is scraped off after the performance. These are done to improve the tone of the instrument

Different tone qualities are obtained from the instrument by striking with the full hand or with separate fingers, individually or severally, at different places. Special sound effects are also made by techniques like "gumukki". Books on mridangam playing recognize seven major 'sound words' and four minor 'sound words'. The first four sound words or mnemonics taught to mridangam players today are tha, thi, thom and nam. The tradition of representing the different tones of the instrument by sound words is very old. Pancha marabu, has a small section on the subject entitled ezhuthu marabu. The sound words mentioned in that work are tha, thi, tho, ta in section under drums and tha, thi, thu, tho, ki in the section on dance. The method of forming compound words is also given. Letters that form the sound words are referred to as vaachiya ezhuthu (instrument letters) or vaachiyam for show.

THE LANGUAGE OF THE MRIDANGAM

As far as Carnatic music is concerned, it should be noted that the language of mridangam is based on the concept of time. Here, rhythm cycles are basically divided into five classes depending upon the number of units included in each division of the 'thalam' – the basic component of rhythm. Thus, each thalam can have varieties with three, four, five, seven or nine subdivisions. The musician can create innumerable varieties by mixing these subdivisions, like introducing one or two cycles with three unit subdivisions within a composition set to a rhythm cycle with the basic unit of four subdivisions.
The mnemonics mentioned above can be arranged into 'jatis' of three, four, five, seven or nine units called thisra, chaturasra, khanda, misra and sankeerna. Each jati (sub divisional unit) can be arranged into seven structures, thus totally yielding a set of thirty five kinds of rhythmic structures or talas.
For example, for the tisra group of thalas, each sub divisional unit will comprise of ta, ki and ta. When this group is applied to the triputa structure, the thala known as thisra jati triputa is got. The groups are also called jatis and each thala is thus named on the basis of the jati and the structure.

THE LINGUISTICS OF MRIDANGAM

The most basic characteristics of language, as outlined by linguistics are:

1. It is a system of systems. That means language system comprise systems of phones, morphemes, words, sentences etc.

2. Each system works as units of the system that exists above it; i.e., phones are units of the system of morphemes, while morphemes are units of the system of words etc.

3. However, it is to be noted that all these systems work simultaneously to function as a language. That means the work on the system of phones need not be completed in order for the work of the system of morphemes to commence activity. The possibility that a phone may function as morpheme, word or sentence, simultaneously, is an additional proof for the parallel nature of the functioning of linguistic systems.

4. A final characteristic of the linguistic system of analysis is that the total value of all the incorporating systems is more than the sum of the value of each of the systems. We call this additional value as either the system of meanings or the value system embedded in any language.

THREE BASIC PRINCIPLES

An analysis of the system of sounds used in mridangam can be seen to follow three of these basic principles. It comprises of concentric systems that are applied simultaneously. The basic sounds used in the mridangam are /ta/ /ti/ /toom/ and /nam/. According as the jati applied, these four sounds make up the basic alphabet of the language of mridangam. /ki/ /Ki/ /Ta/ /ka/ /ku/ /ri/ /Ri/ /goom/ /taam/ and /tlaam/ are the other sounds used. That is, the four basic sounds and the ten additional sounds can be seen to function as the next higher level of notes functioning as jati markers.

Again, these sounds are mixed like /tikutaka/ /tarikita/ /takatimi/ etc. Here the sequence of sounds, based on the tala and jati they represent, can be seen to be functioning as both the basic sound markers as well as the next higher level unit in the scheme of mridangam playing, the ‘cholkettu’ or the ‘vaaitaari’.For example, /ta tarikiTa taKiTa ti tarikiTa tiKiTa toom tarikiTa doomKiTa nam tarikiTa namKiTa/.

The cholkettu, in its turn, functions as both sound markers, jati markers and also as the building blocks for ‘teerumaanam’ or ‘koruvai’. These are the essential elements of the tani avartanam, the solo performance by percussion instruments during any Carnatic music concert. They mark the progress of the tani avaratanam and provide it with variety and color. Teerumanam is also seen in the ‘swara prastara’ performed by the singer, when he exposes the colorfulness of the raga using sets of notes.

In short, as far as the percussion instruments are concerned, jatis are like phones, mixtures of phones are like morphemes or words, cholkettus are like sentences and teerumanams take the place of extended constructions that consists of more than one sentence.

MEANING AND THE LANGUAGE OF MRIDANGAM

The next higher level of the linguistic description of a language is the level of semantics or meaning. The fourth basic principle of linguistic analysis also refers to the special property of language called meaning. In a certain sense it can also be seen that the communicative ability of language chiefly rests on this feature.

Here, the language of the mridangam differs in the conventional sense. Conventionally, meaning can be described as a one to one correspondence made on an arbitrary basis between the sound sequences of a language and the society and real world in which the language system functions. However, it can be seen that the jati markers, cholkettus and teerumanams do not have such arbitrary correspondences with the real world.

This can be examined from another point of view also. The world in which the mridangam functions is that of Carnatic music. So, the jatis etc must be seen in relation to the functions they realize in the world of music. In this sense it can be seen that they do possess meanings. For example, the teerumanams can be seen to be markers of various parts of the tani avartanam. However, the semantic value of the language of mridangam can be seen to be very limited.

ENDLESS CREATIVITY AND LANGUAGE OF MRIDANGAM

Noam Chomsky's TG Grammar exemplifies that endless creativity with finite means is one of the characteristics of a natural language. TG Grammar effectively demonstrates that infinite number of sentences can be generated in any language with the help of a finite amount of sounds and constructions.

The language of mridangam exhibits this type of creativity. Indeed, stalwarts like Palghat Mani Iyer and Palani Subramania Pillai have exhibited exceptional genius that excelled in such creativity. It is also to be noted that the enjoyment of the percussion aspect of Carnatic music to a large extent depends upon the utilization of the creativity of the language of mridangam. The attractiveness of the tani avartanam, for example, hinges on the novelty of the final teerumanam played by all the percussion artists taking part in the concert.

The twelve sounds of the mridangam can be combined in an infinite number of styles to produce innumerable cholkettus and teerumanams. They are subject to the conditions of the time and tempo aspects of the music and the jati used in a particular musical composition. Here also, they can differ with each performance of each musician.

For example, in an article by K Parameswaran in the New Indian Express and in a study by Dr Madhu in the Bhashaposhini, it is pointed out that the way in which Palghat Mani Iyer provided accompaniment for some musical compositions was different every time.

CONCLUSION

To conclude, it can be seen that the language of mridangam follows the various parameters accepted in a linguistic analysis of language. Thus it is a system of systems. Each system functions as a unit of the next higher level system. All these systems work simultaneously to fulfill the functions of the phenomenon called language.

However, such a language will not exhibit semantic characteristics in the conventional sense. A value system attached to the language of Mridangam is also not easily perceivable.

But another one of the main concepts of any natural language – that of using finite means to realize the possibility of infinite constructions – is seen to be applicable as far as the language of Mridangam is concerned.

Thus the study makes it clear that the language of mridangam or the language of percussion can be posited in Carnatic music.

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K Parameswaran
Department of Linguistics
University of Kerala
Thiruvananthapuram, Kerala
India
Email: paramu_2000@rediffmail.com