

# RHYTHM-SPEAK: MNEMONIC, LANGUAGE PLAY OR SONG?

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## ABSTRACT

Vocalisations of pitch and rhythmic material are used by musicians for learning and sharing musical ideas. As musical phenomena this appears to be much more than simply functional music. It suggests communication behaviour that is apparent in the earliest parent/carer interactions with the infant child. The author identifies it as rhythm-speak and suggests that language play, the speaking and singing of nonsense syllables, and vocal mimicry constitute behaviours that stem from the origins of music itself, and that these activities form the basis of creative exploration and improvisation. An investigation of **rhythm-speak** should consider music skills acquisition, biomusicology, and anthropological phenomena to understand the practice of vocalising instrumental music - the main use of rhythm-speak. Questions are asked about the speaking of pitches and rhythms as mnemonic devices or as *sui generis* music making. This is also approached from a critically reflective position based on observation and collaboration in music and educational contexts. Examples from India, Africa, Australia and Asia are considered in a survey of vocalised percussion. The work is still in progress and no formal conclusions have been reached. However, it is suggested that a deeper understanding of both the functional and aesthetic aspects of rhythm-speak might be enhanced by parallel research into music and language.

## 1. BACKGROUND

I was 12 years old and like others in my class had misspelled rhythm in an essay. But we had a wonderful teacher who helped us overcome this in such a way that I have never stumbled on 'rhythm' or other tricky spellings since. The teacher stood up in the front of the class and in a sonorous voice, gesturing with his body, including a big smile, began singing and saying r-H-y -t -H -m. He gave a sharp shrug of the shoulders on **H**, making a visual reference for the position of the consonant. We copied him, repeating his example several times over. The music of this example was built on a repeated triad, with the highest pitch, a major sixth, on the letter **H**. His performance reminded me of recitative, falling between speaking and singing. The following example shows the melodic contour, although there were intonational differences in his rendering, which was more approximate than the notation suggests.

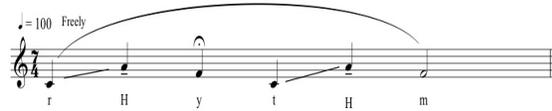


Figure 1: A memorial reconstruction.

I suggest the teacher's approach to the spelling of **r H y t H m** is an example of rhythm-speak. It was much more than a way of saying and spelling the word rhythm. Instead, it blurred the boundaries between speech and song, falling between both. This playful moment was highly communicative as a form of bonding. It was also the kind of spontaneous language play that is a "normal and frequent part of adult and child behaviour" (Crystal 1996:328). And it reinforced the spelling task through gesture, the visual, as well as the auditory. In a sublime moment, **r H y t H m** became a both a ritual and a mnemonic - an operation or code that functions as an artificial means of assisting memory. Besides offering a lasting practical solution, it was so powerful that whenever I see or use the word rhythm. So, I felt early on that speech, song, gesture and visual reference are all intertwined or braided together. I have often asked myself how this moment could be so powerful, because I can recall vividly many details of the experience: the teacher's physical presence - his animated face, his hair, his height, his tartan tie and the copious white chalk on his academic gown, not to mention his English (mid-Cheshire) accent with Oxford University inflections from his educational background.

Many years later I worked as a clinical music therapist at the Rivendell Adolescent Unit (1978-81), at the invitation of the now NSW Governor, Her Excellency Professor Marie Bashir, child Psychiatrist. I joined her team to develop a music therapy program and often used rhythm-speak improvisational frameworks in music therapy sessions with emotionally challenged adolescents. Language play and musical improvisation were effective means for developing self-esteem in group and individual settings. Rhythm-speak helped improve verbal communication in otherwise reticent and often depressed adolescents. It encouraged spontaneity, and encouraged the improvising or writing verse, lyrics and songs.

To refer to a case of involving a 14 year old male sociopathic school refuser, it provided a breakthrough: this young man stammered, had little eye contact peers and staff, and said nothing for weeks to his individual therapist. However, we used rhythm-speak to move him

along<sup>1</sup>, eventually to writing and performing his own song in front of peers and clinical staff. Eye contact increased. Impulsive behaviour was channelled in the structure of his song. His subject matter, - school refusal, smoking, hiding behind toilet blocks – too difficult to discuss in therapy - found expression in a safe and creative way. There was no stammering in his performance. The applause he received provided acceptance for him as a person. It gave him courage to open up.

## 2. MUSIC & LANGUAGE PLAY

The prevalence and use of mnemonics in western music learning is supported by a wealth of research. Many who begin to learn music theory, especially notation, will use acronyms and words as devices for recalling new information (Lazar, M., 2003; Claussen, D., & Thaut, M., 1997; Gfeller, K., 1983). For example, **Every Good Boy Deserves Fruit** is a mnemonic for the note names on the lines of the treble clef; and **FACE** has the same function for the spaces. These are spoken, whereas **One – e – an – da – Two – e – an – da** is chanted to assist the reading of rhythmic notation. There are many examples of mnemonics, chants and rhymes for learning music.

In my use of the term rhythm-speak, I should draw attention to recent research in cognitive neuroscience, in particular the work of Aniruddh D. Patel and Isabelle Peretz. They emphasise the intrinsic relationship between speech and music (Patel & Peretz, 2003:206) and what they see as a complex overlapping between these two human universals is important knowledge for music educators and therapists. Rhythm-speak is thus paradoxical: is r **H y t H m** music, speech, a mnemonic or all of these? And can the research literature of biomusicology<sup>2</sup>, a rapidly growing discipline. I am motivated to explore territory that is usually overlooked by ethnomusicology, my formative discipline. Further, I have the joy of interacting with and observing my own son's (two years old) music making and language play.

My learning to spell 'rhythm' is a manifestation of the blending or blurring of music and language that occurs in mother-infant interaction (Papousek, 1996:50) and the "ritualised packages of sequential vocal, facial, and kinesic behaviours" (Dissanayake, 2000: 390). Rhythm-speak also depends on our appreciation of levels of *formulaicness* and *expectancy* (Richman, 2000:204). I view both as common to language and music. Taking this further, nonsense syllables and fillers are found in most cultures<sup>3</sup>. They are "highly memorable as whole

<sup>1</sup> This commenced with his own name, football team, hooks and choruses from popular songs.

<sup>2</sup> A term first used by Wallin in 1991

<sup>3</sup> "Hey nonny, nonny", "whack fol the diddle"; "doo wah diddy, diddy dum diddy doo", and "zigga zagga, zigga zagga" are but a few of the myriad that exist in English.

units, and are tenaciously retained in exact copies even though they are spread widely in time over hundreds of years and spread widely over diverse languages and cultures" (Richman 2000: 311).

## 3. MOUTH MUSIC

Rhythm is the accented durational patterns of sound in time. It is an essential aspect of music and language (Patel & Peretz, 1997: 202). It is universal; it stirs and moves the body (Levitin, 2006: 257). Rhythm-speak, like other vernacular terms such as 'mouth music', 'scatting', 'lilting' and 'diddling' indicates a highly personalised approach to sound, which is closely linked to mnemonic patterns often used to learn or mimic instrumental music. Rhythmicised percussive gestures through vocal mimicry constitute a definable genre between speech and song. Vocal percussion uses non-meaningful phonemes to imitate instruments, often relying on onomatopoeia. I will provide a range of examples drawn from different cultures to illustrate the ubiquity of vocal percussion.

### 3.1 Australia

The playing of the *yidaki* (didjeridu) involves both a prodigious technique and deep knowledge of song. In NE Arnhem Land both the technique and transmission of rhythm may be carried through a form of rhythm-speak called 'didjeridu talk' or 'tongue talk'. Performers use vocables to follow the rhythmic structure and melodic contour of a song. Tongue talk, which is found in other didjeridu-playing areas in Australia, is used to memorise and guide the performance of the *yidaki*. Figure 2 provides some examples.

1. Maningrida, NT	dit - dya -mo, did -ne-di -mo
2. Yirrkala, NT	pi-pa dorr-do
3. Oenpelli, NT	tay-tum-bor tim-a-loo-loo, digl, krrr-tom

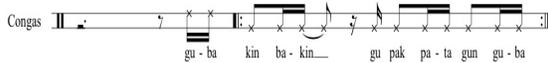
Figure 2: Examples of vocables (1. Adapted from Moyle, 1974).

### 3.2 Africa (Ghana)

Dance drumming is an essential part of Anlo-Ewe life experience in West Africa (Nketia, J.H. Kwabena, 1986; Ladzekpo, C. K., 1995). Drums are usually considered as speaking; and often the sharing of drum sounds and those of related instruments is transmitted through rhythm-speak. In *Gahu*, from the Anlo-Ewe, the ensemble combines large and small membranophones with idiophones made from iron and gourd. The three instruments named below are timekeepers. Each has its own set of sounds that can also function mnemonically. Gangokui: tin/go/ga/; *kidi*:ki/di/ku/de/;axatse:pa/tsi

### 3.3 Central America (Cuba)

In Cuba, conga players learn to speak their riffs using vocal percussion. Vowels and consonants mark accents, simulate open and closed strokes, and denote the alternation of high and low pitches of paired conga drums:



**Figure 3:** Vocables for the *guauganco* rhythm.

Another Cuban example is the *tumbao* pattern: it uses the words ‘*fru-ga tu-ga pak gun*’.

### 3.4 Europe (Scotland, Ireland and parts of North Eastern Canada)

Mouth music or *puirt a' bhèil* (pronounced *porsh* a *bool*) can be differentiated from singing, because it is mostly a rhythmical form of song “where the words are chosen for their rhythmic qualities and the patterns of sound they make” (Chappell, 2005). There are different practices, one of which is to use vocables to imitate the rhythms of dance tunes. It suggests a collective development of formulaic patterns used by fiddlers and pipers to learn their music. However, it is also an instrument substitute when no instruments are available. In Ireland, this is known as ‘lilting’ or ‘diddling.’ Onomatopoeic words are used for ‘singing’ jigs or reels. It is a technique that some believe was developed to thwart the English during their domination of Ireland, when both Irish Gaelic and vernacular music were proscribed.<sup>4</sup> Players of the *bodhràn*, a frame drum popularised in Irish music and throughout the Irish diaspora since the 1960s folk revival, also use lilting and diddling. Players will often perform solos using vocables and playing drum beats simultaneously, closely following jigs and reels: *4/4 doo did-l-ee, oo-dle, ar-dle, doo, dit -un day* etc.

### 3.5 Asia

Vocal percussion is most prominent in India as a device used in teaching. It has become an art form in its own right. In North Indian classical music the drums called *tabla* comprise a pair of membranophones - a wooden shell, tuned and higher pitched than the larger, lower pitched metal shell instrument. Both are sealed and have animal hide membranes. Recent research has found strong evidence that the vocables in tabla drumming are “a case of sound symbolism” (Patel and Iverson 2003:925), that is, they are onomatopoeic.

The North Indian practice is known collectively as *bols*. It’s a spoken drum language. A pattern for the 12-beat cycle, *chautala*, is a fixed unit for elaboration and improvisation, with the goal of performing complex, contrapuntal drum figurations. This drum language is highly developed (Flatischler, 1992:109). It has a mnemonic function to recall and practise rhythms.

Dha 1	Dha 2	Dhin 3	Ta 4	Tit 5	Dha 6
Dhin 7	Ta 8	Tit 9	Kata 10	Gadi 11	Ghene 12

**Figure 4:** Tabla drum pattern using vocables.

This also holds for the Carnatic, South Indian tradition, which has a drum language called *solkattu* or *konnakol*. It has become a highly evolved type of rhythm-speak, a genre in its own right that is has been adopted by

<sup>4</sup> Seán Keane, ABC Radio South West, WA, 2005.

Western musicians of bi-cultural, and non-Indian background. Sheila Chandra and Lori Cotler are popular exponents. Konnakol has its own defined grammar and syntax, although abstract and based on the sound of drums. Performances of konnakol are developed to a point at which they almost conjure meaning from basically percussion phonemes. A good example from Sheila Chandra is ‘Speaking in Tongues 1’<sup>5</sup>

Another drumming example to consider is the less well known Korean *samul nori*<sup>6</sup>. The ensemble of two drums and two gongs has its origins in shamanic ceremonies (*kut*) and farmer’s music (*nong-ak*). Samul nori has a notation system that uses vocables for its main drum the *changgo*, an hourglass shaped resonator with a membrane at each end. It is played with a wooden mallet (*kungchae*) and a thin bamboo stick (*yeolchae*).



kung/tok/tong/ki tok/kiki tok/torr/ku kung

**Figure 5:** *Kung* is the open sound of a kungchae stroke; *tok* is the open sound of a yeolchae stroke; and *tong* is both striking simultaneously.

Other examples of onomatopoeic vocal percussion in Asian musical genres are heard in Indonesia, where vocables are used in drum playing and in the learning the colotomic structures and interpunctuating patterns of gamelan. Balinese players of the *kendang* chant the following strokes: LH - pak / pung; RH - kung / dag / ko / tak..<sup>7</sup>

### 3.6 The Human Beatbox

This recent musical genre of rhythm-speak is very much of the twentieth century and the possibilities of its music technology. The term ‘beatbox’ is widely held to refer to the drum machine and the looping of patterns and riffs. Beat boxing proper begins with the emulation of a drum kit, especially the bass drum, snare and high-hat, as well as other percussion instruments. It may also copy turntable ‘scratching’ if not any other sound. The use of a microphone and amplification allows wide dynamic range, spatialisation and a broad range of effects, especially the delays, reverberation, sampling devices of guitar and keyboard players. Beat boxing picks up on scat singing popularized in jazz, and is also connected with hip hop music. Virtuoso beatboxers command an extensive range of mimicked drum beats, vocal clicks, pops, lip and tongue sounds. Perhaps the most formidable performer capable of combining most of the above is the musician Bobby McFerrin, who is a classical music conductor, jazz improviser and songwriter. His vocal gestures and his capacity for free improvisation make the idea of any boundary between music and language seem irrelevant. This is evident in one of his many recorded

<sup>5</sup> Track (1:45), Weaving My Ancestors’ Voices, CDRW24, Real World, 1992.

<sup>6</sup> *Samul nori* means “playing four objects”.

<sup>7</sup> The author studied kendang with Bapak Wayan Gandra during his visit to Sydney, Museum, 1993.

pieces, 'There Ya Go'.<sup>8</sup> The performance has a strong pulse that is reinforced by body percussion (chest slapping). It begins with a mimed saxophone or muted trumpet riff. McFerrin switches to string bass, interpolating breaths and other mouth sounds. Extended phrases rely on held breaths, such that exhalation and inhalation become accents. The performer alternates between basso, tenor and falsetto vocal registers. There is strong kinetic sense at work in the performance, with foot tapping and 'percussive' breathing adding to the chest slaps. As mouth music, it hovers between speech and song. As spontaneous invention, it is instantly creative, automatic and unrestrained. We engage with its formulaic material - ostinati, grooves and riffs. McFerrin relies on our recognition of rhythm-speak to bring us into his imagination, making us expect surprises and changes. Both are part of the tension and release in music making and in language play. What McFerrin does for me is to tap into what Dissanayake aptly calls "aesthetic incunabula", the very structural devices of mother-infant engagement, where artists first learn to "attract attention, provoke and manipulate emotional response" (Dissanayake, 2001:336).

#### 4. CONCLUSIONS

The author has offered a view of particular musical phenomena in the form of rhythm-speak, suggesting that recent research literature in neuroscience and biomusicology should be considered by musicologists and ethnomusicologists. This will lead, for example, to a deeper understanding of the rapid development of beat box culture as a global music that is becoming prominent on the web. There are clubs and collectives across the world; competitions, festivals and endless blogs and chat rooms. The availability of YouTube, MySpace and numerous video hosting sites has become a major stimulus for sharing vocal percussion and mouth music in performance. Listening to beat boxing evolve from simple drum emulation to include a large array of sounds, rhythms and gestures, suggests that it is a unique form of rhythm-speak, one that lends itself to interdisciplinary research that might look at music and speech in parallel, as well as considering cultural dynamics.

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<sup>8</sup> Track 4, (3:24), *Spontaneous Inventions*, CDP 7 46298 2, Blue Note, 1986.