

GESTURE AND LANGUAGE: ASPECTS OF RHYTHMICAL AND METRICAL EDUCATION IN MUSICAL TEACHING

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ABSTRACT

Background. Dealing with the problem of rhythmical and metrical stability in musical practice has its origin in observations made during lessons of instrumental teaching. There are children or even adults, who, while playing instruments, show noticeable difficulties keeping the correct rhythm.

Aims. Music lessons require a suitable method to teach the skills of rhythm and meter. As a starting point, this not only should happen on a cognitive basis, but should also include special attention regarding the physical dimension of rhythm. Approaches, which include the rhythmical circumstances of motion and language, prove very promising.

Main Contribution. To find out about the function of rhythm in physical behaviour, a description of motor development is necessary. In this connection language can be defined as movement of the articulators. In the process of learning language it is necessary to identify the importance of rhythm as a prosodic characteristic and to honour its function starting with the earliest sounds. In addition special attention is directed towards the close connection between linguistic and gestic expression.

Implications. The abilities of movement and of making sounds exist long before cognitive skills start to develop. Rhythm oriented speech and body percussion trace back to early ontogenetic patterns of behaviour and thus function as a perfect approach for a concept in music education.

1. THE MAIN PROBLEM OF RHYTHMICAL AND METRICAL STABILITY IN MUSIC TEACHING

The element of time in music is one of its most important factors. That is why dealing with rhythm is an integral part of any musical practice. During music lessons it happens again and again, that alleged simple rhythms turn out to become unsurmountable obstacles. It also shows that there are children, young people and adults, who have more than average difficulties performing rhythm with the great ease. In extreme cases, even keeping a steady meter can turn out to be difficult. Therefore the need arises for an approach in music education to achieve rhythmical and metrical stabilization.

In this context the cognitive dimension of rhythm will be neglected. Note values are part of an abstract system of symbols and as such have a fixed significance. In music shops numerous

games are available to train the mathematical skills when dealing with note values. But, like the ability to talk does not depend on being able to write, stability in rhythm and meter does not depend on skills in musical notation. Theoretical knowledge of the length of notes within a rhythmical phrase does not guarantee their exact interpretation.

In the context of music education, it is suggested time and again to approach musical rhythm by motion. Pupils are asked to walk in accordance to the meter of a piece of music, to clap hands according to the difficult rhythms – or are even asked to do both at the same time. The fact is that while they are walking there is generally a regular sequence of steps. However, for someone who has fundamental difficulties performing a steady meter, the exercise "clap hands" plus "walk", would not only be of any help but could be too difficult for the pupil. One has to look for more simple, rhythmical body movements. To be able to develop a concept of minimal steps of learning, which are backed by the psychology of development, studies of early developments of language and motor have to be considered.

2. DEVELOPMENT OF LANGUAGE

Rhythm, stress and phrasing (besides pitch, melody or timbre) are among the so-called prosodic characteristics of language. In the process of language acquisition they play an important role. On one hand, the elements of prosody are in charge of controlling attention in verbal communication, on the other hand, the musical elements of language support learning of grammar and comprehension of language contents. This fact is reflected in the cross cultural phenomenon of parental baby-talk. Language spoken to babies is prosodically overemphasized: in other words, it is a musical language (Papousek and Papousek 1981).

In their first utterances the children themselves are producing musical sounds before they can later be filled with content. The rhythm of language does not only belong to the earliest perceived elements but also to the earliest produced elements of utterances. During the process of language acquisition an increasing and differentiated coordination of sound production is developing because of its sensory feedback which finally leads to an extremely flexible system of articulation. For practical applications in music, the existence of a time grid can be considered, which is built of regular intervals between the stressed segments of speech (see Penner 2000, pp. 110/111). In the same way that music orients itself to a continuing pulse or beat, the articulation of language also shows a tendency towards a regular succession of sounds.

3. MOTOR DEVELOPMENT

At the time of birth the movements of a baby are not yet arbitrary controlled. Instead they are a reflex action. The first attempts of motor control (see Lehmann 1995) are bilateral symmetric movements like putting arms up and down parallel to the longitudinal axis of the body. During motor development in infancy two directions play an important role. One runs from head to toes and is called cephalo-caudal. This direction can be easily imagined, considering that what the baby learns first is to hold its head up by itself, to turn itself over using the torso muscles, to grasp in a controlled manner, to crawl and to walk on its own feet at the end of this stage of development.

The second direction runs from the central to the outer parts of the body. This can be illustrated, when one observes that young children start painting by guiding their pencils with their shoulder and their elbow. Only later does the movement come from the wrist and finally from the fingers. Grabbing a pencil or a brush starts with the hand turned inwards first, thumb pointing downwards. During further development the ulnar side of the hand turns downwards, i.e. outwards. In the order of development what is called pronation comes first, followed by supination.

When dealing with the problem of rhythm in motor development, special emphasis must be placed on the phenomenon of motor stereotypies. That is what continuously repeated rhythmically marked motions during infancy like kicking, waving, rocking etc. are called. These motions are regarded as a transitional state between uncontrolled, reflex-like movements and controlled voluntary movement (Thelen 1981, p. 239). Evidence of the existence of rhythmical stereotypies in the field of articulation is given by the doubling of syllables around the time of the first birthday (like "dada" or "baba") or the appearance of monosyllabic chains. The phenomenon of rhythmic stereotypies is of great importance for this issue, because rhythmically marked behaviour in language and movement are already evident, which are suitable for use in the teaching processes of music and rhythm.

4. GESTURE AND LANGUAGE AS A RHYTHMICALLY COORDINATED PATTERN

Language is processed by movement of the articulators and therefore can be regarded as a motor achievement. In other words, language is motion. Moreover, language is inevitably connected to a special form of body movement which is gesture. Gesture means a form of movement (differentiated from locomotion) of extremities, head and torso, which can be manifold. However, utterances of language and changes in motor behaviour always happen in coordination and follow a rhythmical pattern, which Stern (1992, p. 124) calls self-synchrony. An exact description of this rhythmic accompaniment of speech can be found in the paper by Freedman. He differentiates between gestures related to content which emphasize the meaning of words – or even replace them – and those which are related to the touch of the own body and in this way help to remain concentrated (on oneself and on the subject matter). In the sequence of development actions which refer to the own body precede playing with objects. In

other words, consciousness of one's own self is a prerequisite for an inner representation of objects and associations. Freedman describes the beginnings of physical motion at first as bilateral and rather spacious, in case of content wise relevant gestures he talks of "beat-like accompaniment" (Freedman 1977, p. 114). Here a kind of pulse in music is existing as well. That makes it quite clear that man in his behaviour, as far as language and gesture are concerned, is acting from the beginning in a rhythmical and metrical manner.

5. A CONCEPT OF RHYTHMICAL AND METRICAL EDUCATION BASED ON CONCLUSIONS FROM THE PSYCHOLOGICAL DEVELOPMENT THEORIES

The above remarks show that the forms of motion which are related to the own body, precede the types of motion directed towards the handling of objects. When dealing with rhythm in music teaching, this means omitting instruments at first. Instruments always require a particular posture or movement. Playing difficulties might turn up which look like rhythmical inabilities but in fact are insufficiencies in motor activity. Acting with body and voice minimizes these problems. As shown, speech and gestural behaviour always contain rhythmical and metrical patterns.

As a first step the performance of a regular, stable meter is necessary. One has to keep in mind the above-mentioned rhythmical stereotypies. Incessant and monotonous physical activity can be considered the most simple form of motion control. Now a certain kind of musical action is brought into play which is well-known by the term of "body percussion" and which is unlimited in its variety of brilliant combinations (see Zimmermann 2000). For the first lessons – or for a systematic approach in a difficult situation – clear action is advisable. Performing a regular meter by using simple and stereotyped gestures of sound repeatedly can be considered as the most important approach to a mature capability of action. Clapping hands might be the best known form of action but not the only possible one and not the simplest one. As a reminder of the parallel up and down movement of the arms in earliest infancy, the so-called slapping, i.e. beating on the thigh can be offered either in a parallel manner with both hands at the same time or alternately left and right. Slapping is an action, which is directed to one's own body and which shows a high degree of pronation. Besides hand clapping and slapping, there is finger-snapping but this is directed away from the body and concerns the peripheral parts of it. Furthermore many children do not know how to snap fingers. To stomp one's feet comes last on the scale of cephalo-caudal development.

Speech on the other hand, is a central and early developed feat of control. Therefore it will always be easier to talk a rhythm than to clap it or to perform it even with one's feet. As an approach to a well-rounded rhythm there are always spoken rhythms. Besides verses, it is especially necessary to mention languages of rhythm. Within this system every value is marked by a syllable, which indicates its exact length. Figure 1 shows the Rhythm speech

according to Kodály (see Szönyi 1973, pp. 23/24).



Figure 1: Rhythm speech according to Zoltán Kodály

A possibility of rhythmical extension is to accompany verses by sound gestures. The most simple form is slapping according to the meter of a spoken rhythm: a person performs a "duet" with him- or herself. However, there are times, when spoken rhythm differs from meter. Children or adults without practice often tend to give up the correct meter in favor of a good performance of the spoken rhythm. Nevertheless the above-mentioned phenomenon of self-synchrony should give support to the links between the levels of speech and motion.

6. SUMMARY

The following guidelines should be considered for a rhythmical and metrical education which is supported by the psychology of development:

- Rhythmical practice appears to be easier when not performing an instrument.
- A steady meter is the basis for a controlled performance of rhythm.
- Meter can be realized by using simple and continually repeated movements, following the so-called rhythmical stereotypies (body percussion).
- Within body percussion, the sequence of motor development is important:

pronation before supination, i.e. slapping before clapping,

movements towards the body first, i.e. clapping before snapping,

hands first, then feet, i.e. slapping, clapping and snapping before stomping,

bilateral movement first, then unilateral, i.e. start always with both hands first,

gesture before locomotion.

- Rhythms are most easily realized through language (Rhythm speech!).
- Rhythms are supported by gestures in meter, a little practice an everyone can perform for two voices.
- Virtuosity in combining linguistic and physical rhythm are unlimited (see Figure 2).

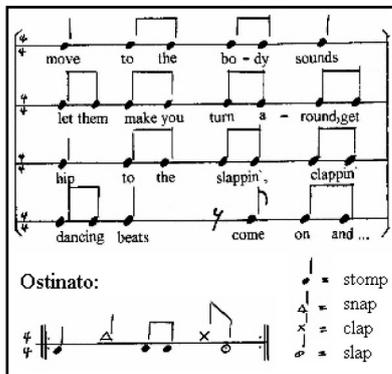


Figure 2: Canon “Move to your body sounds” (Marie Honder, Orff-Institut)

3. Papousek, M./ Papousek, H. (1981). Musikalische Ausdruckselemente der Sprache und ihre Modifikation in der ”Ammensprache”. *Sozialpädiatrie in Praxis und Klinik*, 3 (pp. 294-296)
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Advising people who show difficulties performing rhythm to walk in a certain rhythm (or meter), is totally wrong given the knowledge about the sequence of motor development. Controlled movements of arms or hands are successful much earlier during development. On the other hand, to perform more or less difficult rhythmical patterns the instruments of articulation are better suited. Their central and cephalic position make them into an early developed and extremely efficient motor system. Spoken rhythms can accompany and support instrumental play, depending on instrument. When playing wind instruments, the syllables of rhythmical language serve directly for articulation. When playing several voices the teacher is able to support a weak pupil in his voice by talking and/or by means of body percussion indicating a clear metre. Last but not least these ideas contain a large creative potential for instrument playing which, under the aspects of using body and voice for rhythm can lead to a lot of fun for the musician.

7. REFERENCES

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