

“AUDITORY IMPRINTING” IN SHAPING AN INDIVIDUAL’S MUSIC WORLD

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ABSTRACT

Background. Each individual as a carrier of a certain ethnicity accumulates his initial musical and auditory associations through the mechanism of auditory imprinting of primary intonations, airs, musical phrases and folk-tunes and melodies typical of his ethnic group which lives within the same landscape and under the same natural conditions.

Aims. The purpose of the given paper is to discuss the action of the mechanism of auditory imprinting using music typical of ethnic groups living in the North Caucasus.

Main Contribution. The “auditory imprinting” is formed at an early stage of the postnatal period, thus assuring a person’s permanent interest and attachment to the music of his people all through his life and playing a significant role in forming his musical world. The multiplicity of the manifestation of the musical world presents a unique opportunity for experiments in the field of a personality’s musical activity at different historical periods and in different ethnic groups. It is of great interest from the point of view, on the one hand, of the history of thought, and, on the other hand, of a personality’s being in the whirligig of ethnic traditions. Both of these approaches are very stimulating for the scientific thought to constantly strive forward to new vistas in quest of human knowledge of music.

Implications. In any national region (such as, for example, the North Caucasus) the development of a personality’s musical world depends on self-consciousness of the people, its psychology, ethnic feelings and prejudices, habits and interests, national preferences, conceptions of the “national character”, specificity of the mother tongue and of the history of the people.

INTRODUCTION

Each individual is a carrier of a certain ethnicity. Everyone therefore accumulates his musical and auditory associations through the mechanism of auditory imprinting of primary intonations, airs, musical phrases and folk-tunes typical of his ethnic group as it exists within the same landscape and under the same natural conditions.

Scientists from Russia and other countries (5,p.132; 2,p.306) all agree that the present-day psychology has practically neglected the physiological mechanism of imprinting. The notion of auditory imprinting as it is has not yet been sufficiently developed. This work makes an attempt to “fill the gap” in studying what seems to be one of the most important stages in the formation of a personality’s musical world.

A personality’s musical world constitutes an artistically idealized reality with an “ethnographic background”. Though this auditory ethnicity is quite evident, still in cultural terms the notion of musical world remains rather vague. What influences our personal musical preferences? What guides our personality in the world of music? Can it be only the likeness between the musical phenomenon and one’s national culture? Or is there anything else to it?

1. AUDITORY IMPRINTING

“Auditory imprinting”, formed at the level of neuronic models, launches the mechanism of anticipating possible effects produced by music. This “anticipation” capability reveals itself in preferences given to native music or to what is considered to be similar to it as regards the tone color, intonation and rhythm. According to P.K.Anokhin the reaction to a recognizable auditory object triggers off the motor activity of the organism thus linking the final result with the anticipation process, or in other words, producing the “anticipating reflection” (1).

The principle of “anticipating reflection” has been widely used by K.B.Sudakov in his works on imprinting (6,p.44-49). On the basis of his findings one can conclude that auditory imprinting goes with the ability to anticipate, or rather to “forehear” the results of the action before they have been actually perceived, causing biochemical changes in our memory on a molecular level. Actually, the auditory imprinting influences the whole process of an individual’s musical thesaurus.

As it has been proved by some Russian scientists, the brain of a human being immediately before and after the moment of his birth is capable of perceiving music in the form of a prelanguage(4). This perception is particularly intense at the final stage of the prenatal as well as at the initial stage of the postnatal period and probably in the first few years of a child’s development. “The auditory imprinting” is activated in a state of special acoustic psychoresonance when deep layers of human conscience merge in concord with the sound of harmonic forms. This eventually provides the carrier of any ethnicity with a life-long attachment to the music of his or her own people serving as an acid test prior to accumulation and adsorption of musical and auditory images. The outcome of this process of perception is that music is labeled and classified by the listener either as “ours”, or as ethnically and tonally close to “ours”, or else as “not ours” at all. If the music is dubbed as “ours”, it will induce in the listener a vivid and “warm” emotional response.

The author of the paper has witnessed a noteworthy case of a 5-month old boy, called Alyosha R., who had a very positive reaction to a number of ethnically “his” musical themes and

tunes which had been first presented to him two months before his birth. The audition comprised the Ukrainian song "Gude vitir vilne v pole", the air of Galitsky from A.P.Borodin's opera "Prince Igor" and the air of Ivan Susanin "Ty vzoidi moy zvezda" from M.I.Glinka's opera "Ivan Susanin". The boy's reaction to those tunes was accompanied with manifestly positive emotions. His reaction was particularly positive to the music by M.I.Glinka, notably to the arpeggio-like melodies and harmony, the sound of which resembled that of the authentic Russian folk instrument (gusli). This fact has every reason to be assessed as activation on the genetic level of musical and ethnical factors. The child's positive reaction to the music by A.P.Borodin and to the Ukrainian song can be regarded as his natural positive response to the fast and neatly punctuated tempo. These positive emotions aroused by the music confirm that the outward world has been converted in Alyosha's mind. form an "object" to the "subject" of introversion.

If the sound of music is not perceived as "ours" there can hardly be any affectionate response. Moreover, the tune, the phrase, the intonation may seem to be not only "incomprehensible" but sometimes even "irritating". This kind of orientation behavior, fixed in the memory, is marked by a strive to further search of familiar intonations and chants. And this is the way a person's musical world takes shape.

2. A PERSON'S MUSICAL WORLD: GENESIS AND PHENOMENOLOGY

The musical world is as old as mankind itself. The problem of the musical world, engendered by esthetics and musicology, has now become a focal point of attention of many sciences (biology, psychology, synergetics, integrative anthropology).

Before attempting to prove the possibility of existence of the musical world it seems pertinent to question the very possibility to fix the structure of what is invisible, intangible and subjective. The answer is that although nobody has yet unequivocally determined what it really is, still it is quite real (each person possesses a musical world of his own and there can be no two absolutely identical worlds, just like there is no genetic identity).

It may not be so important to define structural details of the musical world with mathematical precision as to trace the boundaries of its existence. The modern musical world in its manifestations of extreme freedom may threaten peoples health or even their life. What we need today is to find the balance of the components of the musical world which would improve it, preserving the individuality of each member of society. As F.Shelling put it in his time "The final goal of "I" consists in transforming the laws of freedom into those of nature, and the laws of nature into those of freedom, to reproduce nature in "I" and "I" in nature" (3,p.202). In this respect it is necessary to study melodies, tunes, motives, musical phrases and intonations to better understand the culture and the people that have created them, thus penetrating their psychology, their mentality, their consciousness and their subconscious, their ideology and view of life, for "Ars longa, vita brevis".

The phenomenon of a personality's musical world seems to pose quite a few questions of global character, therefore it should be considered as a topic of its own right. It should be noted that this phenomenon tends to manifest itself in a bizarre way. As it is known the formation of a person's musical world depends not only on the mechanism of "auditory imprinting" but also on the genetically transmitted musical information. It predetermines the listener's readiness to perceive various musical phenomena. At the same time it is rather hard to account for the predictability of some musical innovations, typical of the oeuvre of such geniuses as Bach, Mozart and others.

3. MECHANISMES OF FUNCTIONING OF A PERSONALITY'S MUSICAL WORLD

One of the principle qualitative characteristics of the musical world is that it is constantly in the making and in the process of self-modification and self-perfection which can be regarded as the means of self-preservation. In this respect a personality's musical world preserves its relative autonomy, governed by the immanent laws of its own being, determined by its own functions and by the specificity of the stored musical models.

There is yet another particularity of the musical world which is its accessibility and openness. The musical world therefore can be regarded as a self-given entity and as a tangible and objective fact of reality. It is subjected to a constant and aggressive musical pressure from outside. In some cases it has to adjust itself because of "alien" acoustic intrusions, such as haunting pop-music tunes, the "soundtrack" of the urban life, mechanical noises and the like. To withstand this onslaught the inner musical world must have "its own" voice, that is a stock of musical impressions predetermining the quality of what is selected further on.

The accessibility and openness of the musical world accounts for one more mechanism of its functioning as a link between a person's musical world and the outer world of music. In this case the musical world turns out to be a dynamic product of our mind, contributing to a dialogue of musically kindred soles as well as of different cultures and to better mutual understanding among the peoples.

Even two professional musicians belonging to the same ethnos will inevitably have somewhat differing inner musical worlds. This gap will be much more pronounced in the case of representatives of different ethnic groups. It is a premise of a special emotional and suggestive effect which is the third particularity of functioning of a personality's musical world.

In order to better comprehend this particularity an experiment has been made with students of various nationalities of the State university of Adygheya. They were asked to listen to a Circassian folk-song "Adyif"- a girl with a tragic fate. The first audition of the song was done without any prior comment on its story. As a result, non-Circassian students reacted to the song was just like to "wall-paper music" and it was evident that the melos of the song found no echo in their musical world. Only having learnt the story of the song were they able to draw some parallels with their own musical cultures and to empathize with the tragedy which produced a real emotional and suggestive effect of katharsis.

There we touch upon the interrelation of cognitive processes in listeners' psychics and emotional as well as esthetic characteristics of a piece of music, or, in other words, on the syncretic unity of form and content of the musical world.

This syncretism reflects the intentions of a personality's musical world and its attraction even during the very first audition towards a harmonic turn, chant, musical theme or tune. If we admit the existence of such an attraction, then we should also recognize the musical world being representative and structural.

4. STRUCTURAL LEVELS OF A PERSONALITY'S MUSICAL WORLD

The musical world functions on neurodynamic level, emotional and esthetic level, level of meanings and senses, all of these levels being closely interrelated.

The neuro-dynamic level in a person's musical world functions through labile nervous processes of dynamic excitation and dynamic inhibition caused by the impact of music on the human organism.

The emotional and esthetic level provides the construction material for the musical picture. Thus, a sound, a chord or an intonation may be perceived by the listener either as quite mono and one-dimensional, or as stereo and three-dimensional. Sometimes they may seem to be dynamic and focalizing the sound in the ear subjected to the impact of the sound wave (binaural audition), sometimes "static". The emotional and esthetic level is psycho-dynamic by nature. To one and the same music some listeners may have a highly emotional reaction, while others tend to underreact to it remaining relatively indifferent and "lukewarm". In any case, this level is linked with engendering meanings and senses in a person's musical world.

On the level of meanings a person's musical world is not a separate and static but rather a dynamic entity, existing at a given cultural and historical period, in a given society and in a certain ethnic context. The ensuing experience of a personality in esthetic activity, social communication and philosophical interpretation of reality adds socio-psychological and "ethnic" connotations to musical content. Thereupon everyone's musical world can be regarded as a piece of evidence of one's musical culture as a representative of a given epoch and of a given social and ethnic group.

As for the level of senses it should be noted that the musical world, insofar as it refers to a human being (a personality), cannot be reduced to bare impersonal knowledge. The musical world is constantly in motion, it is always active, in the process of modification and development. It is born in action through various types of musical activity, such as performance, perception, composition, improvisation, and it finds its expression in a dialogue. Musical worlds of different people can complement as well as contradict one another, avoiding univocity and penetrating the sphere of various types of musical thought formation (folklore, classical music, jazz, vanguard).

5. CONCLUSIONS

Each individual as a carrier of a certain ethnicity accumulates his initial musical and auditory associations through the mechanism of auditory imprinting of primary intonations, airs, musical phrases and folk-tunes and melodies typical of his ethnic group which exists within the same landscape and under the same natural conditions.

The "auditory imprinting" is formed at the level of neuron models linked with the psychological mechanism of foreseeing the results of the action in the functional systems. In other words, imprinting is based on our ability to predict, "forehear" melodies, tunes and musical intonations even before they have actually been heard in reality. It resists fading and exerts a deep and lasting effect on the individual, taking shape at an early stage of the prenatal period, thus assuring his permanent interest and attachment to the music of his people all through his life and playing a significant role in forming his musical world.

The phenomenon of a personality's musical world has been least studied from the point of view of the genesis, making and existence of its forms; the quality of its structure (of the musical fabric of its component) and the means of its functioning. A person's musical world is directly linked to the outer world of music in all its diversity.

The structure of the musical world is a complex system of such hierarchically co-subordinated elements as neurodynamic fabric, emotional and esthetic fabric, meaning and sense.

In any national region (such as the North Caucasus) the development of a personality's musical world depends on self-consciousness of the people, its psychology, ethnic feelings and prejudices, habits and interests, national preferences, conceptions of the "national character", specificity of the mother tongue and of the history of the people. The musical world, though relying on cultural continuity, is provided with its own mechanisms of self preservation. This can be illustrated by the fact that a representative of any nationality has a so called "inner ear".

It is hardly promising to try and comprehend the musical world of our contemporary from only one point of view (of musicology, history, culturology). Each of these approaches taken separately may, no doubt, be very useful, but what is really needed to study the musical world is the integration of all of them.

Thus, the multiplicity of the manifestation of the musical world presents a unique opportunity for experiments in the field of a personality's musical activity at different historical periods and in different ethnic groups. It is of great interest from the point of view, on the one hand, of the history of thought, and, on the other hand, of a personality's being in the whirligig of ethnic traditions. Both of these approaches are very stimulating for the scientific thought to constantly strive forward to new vistas in quest of human knowledge of music.

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