

“Development of Musical Thinking”  
as an alternative discipline in the education curriculum

I. The proposed study program involves playing mode of studies with children (such studies are possible starting from the age of four). If the author states something and wants to be understood, he/she should agree on terminology with an interlocutor. When speaking of musical thinking it is difficult to agree on terminology since there is no generally accepted definition of the “musical thinking” concept. Thinking as such implies the ability to discern between similar and dissimilar, the ability of ideal structuring of an object in the process of its cognition, and the ability of such analysis of incoming information during which at each moment of time there is synthesis of an ideal notion about the object of perception. The result of such synthesis is an adequate image of the object, its “Gestalt”.

Musical thinking features all characteristics of thinking as such with a single exception: musical thinking (in the meaning offered here) lacks conscious component, i.e. discerning of similar and dissimilar, analysis of sounding information and synthesis of an ideal notion about the sounding phenomenon take place unconsciously. The offered course of study is concerned with forming such intuitive, “predicting”, but at the same time sensory thinking. The concept of “sensory thinking” sounds like an oxymoron. Russian “Unabridged Encyclopedic Dictionary” defines thinking as a possibility “of obtaining knowledge of such objects, properties and relations of the real world that cannot be directly perceived on the sensory level of cognition”.

Nevertheless a listener’s musical thought and meaning of what one is listening to appears to be something that cannot be translated into a conceptual language; in particular it is a more or less adequate reconstruction of a sensory object that has already been created by a composer. Such reconstruction is not

limited to the so-called “sensory level of cognition”. It requires mastery of such rules that help one to structure sensory information into an organic whole. In other words, such reconstruction requires one to master musical language, whatever is meant by it. Thus, for instance, well-developed ear for music of representatives of different musical cultures, i.e. their increased ability for the “sensory level of cognition” does not exclude their inability to understand something that does not belong to their musical culture.

Teaching what we mean by “musical language” will become development of musical thinking for us. The ability to predict the incoming musical information and to “co-intone” and “co-compose” will be a sign of the degree of maturity of musical thinking for us. Any child is capable of comprehending musical language and developing musical thinking.

II. The “Development of musical thinking” education discipline is a complex one covering the range of knowledge and skills which in Russia is traditionally covered by such education disciplines as “Solfeggio”, “Theory of music” and “Musical literature”. Here, at the international conference, we should first of all determine the “solfeggio” concept. When using this word we by default imply the so-called “Russian solfeggio” which is a subject aimed at developing ear for music (and partly musical thinking).

This subject, as everybody knows, includes the following working modes: intonation exercises, singing from music, musical dictation and acoustic analysis. In fact only two working modes are realized – intoning exercises (including singing from music) and acoustic analysis (including dictation). Because of our customary understanding of the “solfeggio” term there invariably arise misunderstandings when communicating with our western colleagues. The thing is that, for example, in Western Europe, in Latin America and in the US the “solfeggio” concept means something quite different from what we are used to (for instance, exclusively “singing from music”), or the word “solfeggio” itself is not used at all (like in Germany).

It is assumed that there are two main kinds of ear for music – “recording” and “predicting”. “Recording ear” determines a sound phenomenon and gives one a chance to give it a conventional name, but there is no chance to assume the most probable following element in a musical composition. “Predicting ear” is probabilistic acoustic thinking; such ear allows one to make most probable assumptions; it is a kind of ear based on expectations.

Traditional “Russian solfeggio” develops “predicting ear”, not as an aim, but as a result of a certain side effect. The aim of the “solfeggio” subject is usually “recording ear”, i.e. recognition of certain musical phenomena without orientation towards participating in the intonation process, to “co-composition”. In the subject that I suggest development of “recording ear” takes place as well, but as a subsidiary action that supplies “predicting ear” with necessary material.

Thus, although the “Development of musical thinking” subject resembles “Russian solfeggio”, there is a fundamental difference in priorities and, as a result, a different structure of pedagogical process: a lot of those things that are considered fundamental in “Russian solfeggio” are derivative in “Development of musical thinking” and vice versa. My teaching method is based both on the ideas of semiotics and information theory, and on the known effective methods of the development of musical ear. Perception is regarded as a homeostatic system reacting on the disturbances, which come from a musical text. The original form of a relative solmisation with a “fixed tonic” is used as an aid for learning the musical fragments and as ear training, as well as a special system of the one-to-one correspondences between the relative degrees of tonality and spectral colours. The rules that I have discovered are presumably of objective nature.

III. The main principle of mastering rhythm in the proposed system is examining rhythmic phenomena (commonly known as “durations and rests”) not by themselves, but always as elements of integral rhythmic motive. Acoustic distinguishing of tone durations is quite complicated as it is. It just seems that relativity and divisibility of durations helps one to distinguish them. If a whole note lasts, say, four seconds it does not mean that we will reproduce a half note for

two seconds, and not for 2.1 or 1.9. Moreover, in real performance such deviations are not only usual but often necessary. Correct definition of divisible durations happens not because they are divisible, but because they fill relative time from an accent to an accent (part of the bar, beat) in a hierarchal way like this: strong position, weak position, weakest position, similar to calculation systems used in primitive cultures – “one”, “two”, “many”. The farther apart are the accents, the more difficult it is to guess the next accent, the next “strong position”. Especially long notes and rests have to be calculated without relying on intuition. As a result the main difficulty in developing rhythmic perception is acoustic determination of species of meter in the absence of accompaniment. A bar-line marks the “strongest position”. However these “strongest positions” are at such distance from each other that they cannot be determined by an untrained (and often by trained) ear. In a musical phrase (or a motive) there is always a certain culminating point, an accent that is formed in different ways. If such an accent inside a coherent musical text is repeated regularly, then it most likely coincides with a bar-line. Thus the sense of regular meter is formed in the process of a musical text perception, and is not assigned from the outside. Formation of a bar-line takes place in the following four cases: 1) the accent of the phrase and the bar-line always coincide with one another; 2) there is a bar-line, but no accent (the bar-line is perceived from force of inertia, mechanically); 3) there is an accent, but no bar-line (so-called intra-bar-line syncope); 4) the accent and the bar-line never coincide with one another (the bar-line is ascertained through the change of harmony).

Besides, in order to distinguish sound positions inside a part of the bar a special system of rhythmic solmisation is suggested. Its outward features have already become part of Russian “music pedagogical folklore” because they were not published in proper time. Its essence is that special syllables mark not durations, but rather sound positions – strong, weak and weakest. Thus using one and the same syllable different durations may be marked. Such approach goes back to the system of French 19<sup>th</sup> century teachers, to the system of Galin-Paris-Chev . The systems accepted in pedagogical practice are, as a rule, not position-based, but

rather time-measured. The main thing is that thanks to a special method of identifying culminating accents children learn to identify caesuras, i.e. to perceive a musical text as a segmented one, distinctly.

IV. The entire course of study includes the “Musical culture” subject (see round table materials), as well as a special method of writing dictations, singing at sight, rhythmical upbringing and methods of acoustic mastery of chords (up to 32 non-recurrent interval structures in root close position; in all inversions and positions more than 700 chords), practical mastery of all natural and altered modes, elements of elementary composition, a course of “harmony melodisation” (unlike generally accepted melody harmonisation which will take place as well), a special approach to systems of relationship between the keys, a special approach to developing polyphonic perception, etc. Thus the entire course of study includes everything necessary for those who will want to later obtain professional music education at a conservatoire (University). Individual elements of the course may be used at a University itself. In a reduced form the course may be used at music lessons in general school. The aim of such school general education course of study is not assortment of knowledge about music and not even systematic notion of musical culture, since such notion without emotional support is of no use and will be forgotten later on. The aim is to educate such a listener who on the one hand will be able to get more pleasure from our musical treasures and on the other hand will him/herself want to enrich and systemize his/her knowledge.