1. Understanding involves anticipation

In order to discuss about the language of music we must first come to an agreement on what we mean by the term. We use it on the assumption that we all mean the same thing. It is however an extremely complex concept and, far from agreeing about its meaning, many musicologists deny that there is much substance behind it. Just as a natural language cannot exist without thought, I propose to use the term „musical thinking“ to assist us to understand the term „language of music“.

Piaget distinguished three kinds of thinking:

-sensorimotor

-visual

-reflective.

When we use the word „thinking“ we usually means reflective thinking. The perception of music however is different and calls for mainly pre-conceptual, sensorimotor thinking. As Piaget said, „Sensorimotor intelligence is based on perception and movements“. The latter are unconscious reactions of our bodies and vocal chords, which provide the intellect with information, and the
intellectual processing of this information is also largely unconscious. In my opinion there are two types of perception - recording and predicting. I see something and say to myself: „I see A“, drawing no further conclusions. That is recording. There is however another possibility. I see something and say to myself: „I see A but I am probably about to see B“. This is the predicting mode of perceiving. First a few examples to illustrate the points which I want to make. When talking to someone who stutters, we feel the urge to complete his words for him. A second example - in the course of a normal conversation we encourage our partner on with nods and brief expressions of agreement. What we are doing in these instances is called „text prognosis“. The readiness to anticipate is essential for the understanding of the text. When listening to an unfamiliar text, it may be that all one's predictions are wrong but if we do not feel the need to anticipate what is „coming round the corner“, it will not be possible for us to understand the whole. It is also clear that we cannot anticipate what is coming next without knowing the language. A text is like a play or a film in which the language elements are the actors. Behind each actor is a specific „role-type“ and this role-type is a constant appearing in other plays as well. For instance, the name Marilyn Monroe is associated with the role-type „sex-bomb“, with the name Vincent Price that of a „baddie“ and with the name Luis de Fuenes that of a „zany“ role-type. This role-type is not the role itself. To some extent it determines the role but it leaves a certain amount of latitude. If we look up a word in a dictionary we find a number of different translations of it and all of these taken together constitute its role-type. In the case of words, knowing the language means knowing these role-types intuitively. When we read an unfamiliar text, we recall from our unconscious all the texts already known to us in which these language elements appear in the same role-types, the role, the behaviour of the symbol, being that which we sense we can expect when this word appears. Thinking musically involves the intuitive assessment of such probabilities and making appropriate predictions.
2. Understanding involves creative perception

To further the development of musical thinking I as a teacher must first decide which kind of musical language is the most „probable“, that means, which language contains particularly clear and frequently recurring symbol relationships. In classical music I consider this to be the early music of Beethoven.

First of all I have to assess which symbol relationships are most likely to occur in this particular language. Thus I decide, which elements of the language should be studied at first. Then I can proceed from the more to the less likely relationships and from the more to the less „probable“ language. The problem is not however to know the probability of a symbol in theory but to internalize this probability, not as a fixed pattern, but as one of many possibilities. I expect A but B comes instead. This should not irritate me but rather encourage me to restructure the expected configuration and so resolve the conflict in my perception.

Instantaneous understanding is the result not of reflection but of an alteration in the whole system of relationships. Disturbance of perceptual inertia is a way of rousing attention to a possible item of information but is not an item of information in itself. Information is only gained through the resolution of the disturbance in perceptual inertia, the hearer recognising that one of the various possible relationships between elements has been realised. This relationship may not be apparent but is still probable and statistically relevant. Even if such a relationship has never appeared before, it was always a possibility. This means, as Pierre Boulez says, „to make the unexpected inevitable“. And Ferdinand de Saussure defines language as a „reservoir of forms that have been or could be conceived“. Information is not what is understandable but what is understood.
I see the restoration of perceptual inertia following a disturbance as the essential process for the reception of information. In this case an item of information is not just a novelty, but only a novelty which is understood. Whether a text is in itself highly ordered or not makes little difference to the amount of information transmitted. The greatest amount of information will be gained when a maximal re-ordering response to it takes place in the hearer. The aesthetic response is the pleasure of recreating order following the disturbance created by the text in the perception of the hearer. A response of this sort always involves resistance, a battle as it were between hearer and composer. It is a battle which both either win or lose. For such a response to occur it is necessary not only to hear - in the sense of hearing as passive recording, supplying the aesthetic perception with the necessary „building materials“, but also to listen in an actively predicting way. Only then does hearing take place on a higher level, that of „integral hearing“ or in other words understanding. Prediction cannot of course take place without first recording. Unfortunately musical education is often solely a matter of training learners in the latter. Development of the ability to predict occurs mostly by chance, as a side effect as it were.

In order to develop unconscious motor reflexes we must find a connection between conscious and unconscious reactions. With regard to melodic thinking Guido d'Arezzo has already discovered such connections - solmization as teaching system. The most important thing however is not to have the right tool but the right objective.

3. Understanding involves dissection

In order to experience how the process of perceptual prediction works, you can carry out the following experiment. Take any tune but one which is unfamiliar to all participants apart from the „quiz-master“. The quiz-master writes out the rhythm of the tune and puts the question: „What is the first note in the tune?“. The participants then all hazard a guess. Clearly, if they did not recognise the
whole tune from the rhythm, the first note can only be arrived at by chance. The quiz-master then tells that the first note is, say, B flat. The participants write this note down and those who had guessed right draw a circle round their B flat. They then go on to guess the second letter, the third and so on till the end.

The significance of this experiment lies in the modelling of the process of reception of information under the influence of perceptual anticipation. The notes which were encircled and those which were not make up chains and these chains indicate different phases of perception.

The notes which were not encircled are accompanied by increased attentiveness and indicate phases where disturbance of passive perception occurs, in other words novelty phases. The notes which were encircled are distinguished by relaxation of attention and indicate phases of passive perception, in other words guessing phases. The transition from novelty phase to guessing phase can be regarded as the culmination and the reverse transition as a caesura. The period between two caesurae thus represents a significant unit of the text as interpreted by the hearer. It is clear that this unit can be meaningful but can also be completely meaningless if it does not correspond to the „significant unit“ conceived by the composer. What is then the meaning of such a unit? This only becomes apparent when the hearer succeeds in grasping its particular intrinsic and its extrinsic relationships. These are revealed in a moment of revelation when the guessing phase retrospectively illuminates the novelty phase and makes it intelligible.

4. Understanding involves participating in composition

When composing a musical text a composer conceives certain sub-divisions. Those we conceive when we hear the text however are quite different ones. The composer's sub-divisions represent the original, the „inert“ structure, ours on the other hand a disturbance of its inertia. Information is gained on two levels. On
the lower level the perceptual sub-division per se takes place, restoring inertia at the point of culmination. In investigative work - in the secret service or in detective stories - this sort of situation is known as „the moment of truth“.

On a higher level the sub-division of the hearer is brought into agreement with that of the composer, so that the text is restored to its original state. Without sub-division of the text, whether musical or other, it is not possible to understand it.

That is why in the teaching system I recommend particular attention is paid in the very first lessons with 4-5 year children old to one special technique, „dissection of a musical text“ and its application. But this subject is only a part of the „Musical Language Course“. The whole course is a rather difficult one for the teacher, for the pupil of whatever age or talent it is simple and straightforward (unfortunately the situation is usually exactly the reverse). Thinking in advance means participation in composing so that a course of this kind is also a course in composition. Until the 19th century all those who studied music also composed in one way or another. Knowing a language means not only being able to understand it but also to write in it - if not a novel, at least an intelligible letter.

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