young, the broken lives, the defeated hopes, the national failures, which result from the frivolous inertia with which it is treated, it is difficult to restrain within oneself a savage rage. In the conditions of modern life the rule is absolute, the race which does not value trained intelligence is doomed. Not all your heroism, not all your social charm, not all your wit, not all your victories on land or at sea, can move back the finger of fate. Today we maintain ourselves. Tomorrow science will have moved forward yet one more step, and there will be no appeal from the judgment which will then be pronounced on the uneducated.[13]

We can be content with no less than the old summary of educational ideal which has been current at any time from the dawn of our civilization. The essence of education is it be religious.

Pray, what is religious education?

A religious education is an education which inculcates duty and reverence. Duty arises from our potential control over the course of events. Where attainable knowledge could have changed the issue, ignorance has the guilt of vice. And the foundation of reverence is this perception, that the present holds within itself the complete sum of existence, backwards and forwards, that whole amplitude of time, which is eternity.

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Leonard Ratner: For the Layman[14]

Music theory for the layman is a matter which raises a number of general questions. At the very outset we should determine the following:

1. Who is the layman?
2. What kind of music theory is appropriate for him?
3. In what way may he be taught music theory?

Here, we consider the student in a liberal arts college as the layman in question. This limits the discussion since we are excluding many other kinds of musical laymen; nevertheless, there are advantages in centering our attention upon such students. The machinery for teaching them is set up; classrooms, equipment, units, requirements — these all help to organize the situation for a direct and sustained learning effort. We can also rely upon student interest and curiosity about music to provide motivation for learning.

13. Alfred North Whitehead, op. cit.

14. The material in this article is based largely on Chapters I and II of the author's book, Music: the Listener's Art, published and copyrighted by the McGraw-Hill Book Company in 1957. Used by permission.

The kind of theory that is appropriate for the layman depends upon the usefulness of the theory. Our layman probably does not compose. While he may perform some music, it is not likely that this music has great scope or complexity. His principal contact with music is to receive some communication from it. Thus, his approach to music is through listening. Any theory which he learns ought to increase the intelligibility of the communication. Hence, any theoretical concept introduced to the student should tie in directly with some persuasive musical illustration.

How may music theory be taught to the layman? This can be done in different ways. Some laymen have the courage to embark upon a course in elementary harmony or counterpoint or perhaps general sight-reading and ear-training. Others, and these represent the majority, look for elucidation of the music they hear; they want to explore their musical experience more thoroughly than their very limited knowledge will allow. For these students, the course in music literature seems a proper vehicle. The wide choice of material and emphasis possible in such a course will enable the teacher to range freely and to introduce theoretical concepts meaningfully.

As the teacher makes his presentation, he must always color it with the idea that everything that has been included in the vocabulary of music theory is there because it has some potential for musical action, for musical quality. A scale, an interval, the concept of tempo, the action of a sharp or flat — these were first born in the context of musical action; later they were isolated and codified. Theory for the layman (or for that matter, for anyone concerned with music theory) must return the severed detail to its rightful position within a structure of musical communication and experience. If this is done, then the course in music literature or appreciation can be virtually saturated with implications of music theory; it can open the door for the layman to fascinating insights into the genuine substance of music, its relationships and their affective qualities.

In order to make such a presentation, we should establish certain fundamental criteria which will organize the details and give them meaning within a general context. I should like to suggest some such criteria.

These criteria cover the following basic qualities in music:

1. Qualities of musical sound
2. Qualities of musical movement
3. Effects of arrival in music

These criteria deal with basic, generally comprehended elements of the musical experience. By using sound, movement, and arrival as points of departure in our presentation we can begin with general impressions and perceptions, later linking them with special technical and theoretical points. Thus, qualities of sound will subsequently be connected with certain harmonic values and with texture. Musical movement will be further elucidated in connection with rhythm, harmonic action,

melody, and certain aspects of texture. Arrival will have to do with cadence relationships and structure.

If the layman listener uses the criteria of sound, movement and arrival as he begins his analysis, he is able to ask important questions regarding the music he hears. He can focus his attention upon qualities which I feel are basic in the composer's own view of his music.

When he listens for qualities of sound, he can judge the sound by asking the following questions:

1. What level or levels of sound has the composer selected?

   High, low, middle, wide or narrow range? What effect has the level of sound upon the general impression given by the piece? Such works as the Scherzo from Mendelssohn's Midsummer Night's Dream (high sound), the opening of Liszt's Les Préludes (low sound), the opening of Brahms' First Symphony (broad range of sound) can illustrate the effects of various levels of sound and their relation to expressive values in music.

2. How much sound is projected?

   Little, a great deal, a moderate amount? Examples of this quality might range from plainsong (small amount) to a Wagner orchestral tutti (great amount). This can be tied in with range and level, and the conclusions can then be linked to some of the expressive effects of the composition in question. Fullness vs. transparency of sound can also be evaluated here; in this connection we can point to the preference of much 20th-century music for thinness of sound. Also, we can tie up the amount of sound with the strength, a very important element as far as projection of musical meaning is concerned. Indeed, by loud or soft manner the composer can communicate his meaning perhaps more clearly than by any other means. This seems quite obvious, but just because of its immediacy it may be overlooked while we are evaluating the qualities of a composition. Compare the gentle dynamic effect at the beginning of the Mendelssohn Scherzo with the opening of the Brahms First Symphony; note also the dynamic contrasts in the first measures of Mozart's "Jupiter" Symphony.

3. What are the special timbres or colors of sound employed?

   Timbre or color provides another very distinctive element among our criteria. Unlike level, amount, and strength, color of sound cannot be pinpointed with ease. Our evaluation of this quality will be rather subjective, employing analogies and figures of speech. We might begin by illustrating contrasts of timbre, producing a tone such as the "violin A" upon the piano, a violin, a cello, a trumpet, or by

singing the tone. Impressions of blend or separation, clarity or opacity, fullness or thinness, brightness or dullness, edginess or softness — these are all varieties of tone color which can be noted, evaluated, and related to the general effect of the composition. Here we could also touch upon basic harmonic values, pointing out that the colors of sound in a composition are affected by the tone relationships themselves. We might compare the blended sweetness of a Palestrina motet, arising from the saturation of rather closely spaced triad sounds with the rich mixtures of Wagner's sound, arising from the use of highly-inflected tritone, seventh, and ninth combinations. These in turn could well be contrasted to the "open" effects of 13th-century ars antiqua music, based on sonorities of the fourth, fifth, and octave. The thin quality of some 20th-century music can then be ascribed to preference for combinations which have a minimum effect of "blend."

The universal validity of movement needs but the barest explanation to the student; movement is of the essence of all events that take place, musical or otherwise. Musical sound, moving in time, has certain values or meanings attached or connoted. Thus, musical movement displays the following general characteristics:

1. Pace or rate of speed
2. Regularity or irregularity
3. Degrees of emphasis or vigor
4. Articulation or degree of continuity

We can well use the illustrations for sound to demonstrate qualities of movement, combining the criteria to make a more complete picture. For example, the fullness of the opening of Brahms' First Symphony with its great strength of sound is carried forward and maintained by the slow, vigorous, steady pace, which has clear but widely spaced points of articulation. The lightness, high-level sound quality of the Mendelssohn Scherzo fits in perfectly with its quick, regular, gentle, and highly-articulated quality of movement.

After musical movement, logically the next point will be the effect of arrival. In order to be sensed by the listener, musical movement must have some relation to a goal, a point of arrival. Motion is not continuous; it is marked off in cycles or phases by points of arrival. At the same time, each point of arrival, except the final one, is a point of departure for a new phase of movement. To evaluate points of arrival in music, we can listen for the following characteristics:

1. Effect of finality
2. Clarity
3. Degree of emphasis

Evaluation of arrival in music requires the listener to make rather subtle distinctions, often quite subjective in nature. Arrival in music operates on something of a sliding scale, and we must qualify the degree of finality, clarity, and emphasis very much as we rate points of punctuation in language. For example, the beginning of the Finale of

Beethoven's Fifth Symphony has a dual aspect: it is a point of departure, of course, for the last movement; on the other hand, it is a tremendously dramatic point of arrival leading away from the scherzo; it is prepared by a very long period of gradually rising pitch, increasing strength of sound and amount of sound, and brightening color of sound. The clarity and emphasis of this point of arrival are at their maximum. On the other hand, there is but a partial sense of finality. This is no ending but a beginning of something new. Conversely, if we take a song like Drink to me only with thine eyes we can hear four clear points of arrival, evenly spaced. The first, second, and fourth of these points might well stand as final; only the third demands continuation. The level of emphasis is about equal for each of these points of arrival, relatively light, with the exception of the last, which seems stronger by virtue of its greater implied length. The points of arrival in this song are principally points of punctuation or articulation; the point of arrival in the Beethoven symphony acts as a goal foreshadowed long before its actual appearance.

Still another example: the pauses at the beginning of the Prelude to Tristan are not clear, emphatic, nor are they by any means final. In each phase of movement the music trails off; it evaporates, leaving us suspended in mid-air, figuratively speaking.

We can link movement and arrival quite closely in our analysis. The gentle articulation of the cesura in plainsong is a breathing point which defines a short phase of relatively moderately paced gentle movement. The dramatic and momentous points of arrival which mark off the exposition and development sections of a classic sonata-form follow broad and sweeping phases of movement. The steady, purposeful movement with few but decisive points of arrival in a baroque fugue or concerto might be contrasted to the tentative quality of movement and indecisive cesuras at the beginning of Wagner's Tristan.

Listening for points of arrival has an interesting and valuable effect for the student. As he anticipates these points he becomes quite acutely aware of the musical action that is taking place, the play of sounds and textures, the fluctuation of qualities of movement, the design being projected. He can then begin to appreciate the structure of the music as a plan of action, even in such a complex piece as the first movement of Beethoven's Third Symphony.

The treatment of sound, movement, and arrival in music described above illustrates an approach which can gain maximum results within a limited time. By asking specific questions about the music as he is hearing it, the layman establishes fundamental points of contact, points of orientation. Such questions focus his attention directly upon the music, reducing extra-musical associations, eliminating idle daydreaming. His listening becomes active; it is no longer passive.

In the above presentation, language that was directly intelligible to the layman was employed. This facilitates the grasping of general concepts; various kinds of musical action are related to general aspects of experience. Bit by bit, then, the technical or theoretical terms

used to identify musical concepts can be attached to these general ideas. The approach described above precedes and anticipates the explanation of music along theoretical lines. Such a framework might also include pertinent observations about style and aesthetics.

Much as we have established value contexts for sound, movement and arrival, so can we establish a structural context for the examination of theoretical details. Such a context is found in the musical phrase. Since the phrase is a fairly short section of music with a clearly defined point of arrival, the listener can grasp its sense quickly; the entirety of a phrase can be encompassed within the attention span of the listener. The phrase gives us a point of departure, a phase of movement, and a point of arrival; it thus fulfills the requirements for a significant segment of musical structure. The analogy of musical phrases to those of language is useful. Both in music and in language, phrases contain clearly formed, characteristic ideas, yet they may lack something in form or sense to be complete. Within the musical phrase, we can observe melodic behavior, rhythmic relationships, texture, the action of harmony, and the sense of progression which is essential to musical form. Like phrases in language, musical phrases form into coherent phrase groups, periods, period groups, key areas, and entire musical compositions. Thus the phrase can become the point of departure for the consideration of musical form.

With respect to melody, the following points should have meaning to the layman:

1. He can grasp melody as a salient, familiar element in the musical pattern. To him, melody is a highlight, which may perhaps give a capsule version of the character of an entire piece or a section thereof. Memorable melodies can be cited to illustrate this point, such as some of the themes from the Tschaikowsky symphonies or the Mozart or Verdi operas.

2. The shape or outline of a melody can be appreciated readily. The range of a melody, its direction, its general conformation — these can be described and illustrated graphically. Some of the specific patterns which melodies describe, their turns of movement in musical "space," such as rising, falling, turning around one or two focal points — these can be recognized. We can recognize melodic arrival at the apex of the pattern, its point of highest rise or lowest descent, or at its final tone. Illustrating the points made above, we can observe the melodic behavior of the opening theme of Mozart's G-minor Symphony. This theme is characterized by two abrupt rises alternated with compensating level passages. These sharp upward thrusts give point to a brisk, vigorous, agitated, and buoyant quality of movement linked to sharp, brief contrasts between light and full qualities of sound. We hear four points of melodic arrival, of which the third is the highest and most intense.

3. Following the observation of melodic contours, we can have

a closer look at melodic construction, observing the nature and relationship of melodic motives. Motives may be compared to intelligible word groups, such as "once upon a time," "very well," etc. Generally, they can be described as a minimum phase of melodic movement, directed to some point of arrival; this may be a cesura, a mere point of articulation, or a point of connection to a subsequent motive. We can dramatize the arrangement of motives by illustrating repetition, variation, and contrast. These relationships, of course, carry immediate meaning to the listener. To illustrate repetition, we might use the second of the themes from the third movement of Beethoven's C-minor Symphony. Here, repetition underscores the single-minded, direct, hammer-like quality of the theme, with its heavy sense of movement and its great strength of sound. We can also point to the binding effect of repetition when it follows some variation or contrast in ABAB, ABCB, or other formal arrangements. The opening movement of the C-minor Symphony of Beethoven provides an excellent example of the variation of a basic motive; motives are gathered here into a steadily rising line that reaches a climax at its apex. We can get a very dramatic idea of the effect of contrast at the opening of the Finale of Mozart's G-minor Symphony. Certainly the extreme contrast of the "rocket" motive with its levelled-off counter-statement contributes measurably to the electrifying quality of this piece.

Having drawn attention of the listener to the importance of melodic motives and to their mutual relationships, we can illustrate in an extended movement, such as the first movement of Mozart's Quintet in E_b major (K. 614) how motives are stated, joined, separated, re-aligned, and treated in different contexts. In all these examples, and in whatever others may be used, we can show how melodic motives have character, musical personality, and provide clues as to the nature of the composition of which they form the structural units.

4. At this point, we may venture cautiously into the matter of melodic intervals. Circumstances limit us very much here; however, certain salient aspects of melodic interval structure can be directly meaningful. Principal among these is the idea of size. Conjunct and disjunct melodic intervals create markedly different impressions. Melodies built principally from one of these two types will receive something of their character from the conjunct or disjunct structure. The smoothness of plainsong or the Hymn to Joy from Beethoven's Ninth Symphony depends entirely upon stepwise melodic action. The boldness we note at the beginning of Mozart's Haffner Symphony or Brahms' Third Symphony arises from the decisive leaps which line out these themes. Conjunct versus disjunct intervallic structure is a factor in the stylistic difference between the opening movements of

Stravinsky's L'Histoire du Soldat and Schoenberg's Pierrot Lunaire. (I mention these two works because they are contemporary to each other and exhibit some early 20th-century stylistic features in common.) If possible, the specific character of various intervals may be illustrated, with reference to their distinctive effects. The tightness of minor seconds, the richness of thirds and sixths, the "open" quality of fourths, fifths, and octaves, the instability of sevenths, ninths, and especially the tritone, these can be demonstrated in examples from musical literature, both in consecutive and simultaneous relationships. The layman may not be able to identify many of these intervals, but it will be most helpful to realize that such relationships do exist, and that they exert a profound effect upon the music he hears.

5. Finally, with respect to melody, we might draw attention to the role of melodic material within a given movement. The active play of highly contrasted motives in the first movement of Mozart's Eine Kleine Nachtmusik forms a neat contrast to the broadly singing melodic style of the Romanza. The clearly segmented tunes of Schubert's Impromptu in A^b show a different use of melody than that of the unbroken lines in a renaissance motet. In each case, as we evaluate the melodic character of a work, we should fit this quality into the general picture of sound, movement, and arrival established earlier; this will help to clarify the role of melodic action within a phrase or an entire composition, showing melody's organic relationship to the entire work.

In this presentation, melody has received first consideration, but only because of its salient nature. Rhythm is probably no less clear and direct in its impact, and it might well become the first element to be taken up.

With respect to rhythm, the control of musical time, the layman can grasp the following concepts:

1. The idea of a beat or pulse. This is evidence of a fundamental vitality in music; the beat tells us something about the attitude, the kind of activity being projected. We can begin by relating beat and pulse to musical movement in a general sense, showing that musical movement is built up by a series of beats and pulses linked together as points of departure and arrival that encompass minute phases of musical movement. We might draw an analogy to the phi-phenomenon upon which the motion picture process is based, and also to walking in which each contact with the earth represents a beat and the swing of the foot represents a phase of movement.

   Then we observe the manner of the beat or pulse, which brings us to the idea of accent or stress; this can be related to the basic qualities of movement we have observed in pre-

vious listening. The vigorous strokes of the Blue Danube Waltz, the light, clockwork action in the first movement of Bach's Brandenburg Concerto No. 2, the total absence of a palpable beat in the first measures of Wagner's Tristan — these represent ways of using the beat or of avoiding it for special purposes of musical communication.

2. The lay listener can appreciate the groupings of beats or pulses. Basically, groupings of two or three beats are easily grasped; these might be associated with poetic meters, such as iambic, trochaic, anapest, etc. Here again, the idea of phases of movement, this time enclosing two, three, or four beats can be illustrated. In such phases, one beat in each group has stronger action; these accents or stresses enclose groups which form heirarchies. This can lead directly to a consideration of symmetrical or balanced phrase structures. At this time we can begin to talk about rhythmic regularity or balance, to show how it is established by repeated metric patterns; we can then show how effective a disturbance of regularity can be. I should like to mention two examples. In the first movement of his Eroica Symphony, Beethoven establishes a rather quick triple meter. At the 25th measure, he suddenly compresses the metric group to duple, throwing the rhythmic action out of joint, into a higher gear; before this imbalance is adjusted, we hear an entire series of fluctuating metric groups, twos, threes, and misplaced threes; this all culminates in a tremendous drive to a dramatic point of arrival. In the opening movement of Stravinsky's L'Histoire du Soldat, two specific metric levels are established. There is a basic duple meter given out by the string bass, a kind of "oompah" figure. Above this steady movement, we hear figures involving many kinds of metric grouping. By focussing in turn upon each element in this rhythmic plan, we can appreciate the wonderful effect that arises from the play of rhythmic balance and imbalance.

It seems to me that any more specific or detailed explanation of meter or rhythm would depend upon the time available and the aptitude of the class. In any case, I think that these would have to be related to the underlying aspects of musical rhythm, the idea of a beat or pulse, the idea of metric groupings, and the play of rhythmic balance and imbalance. It is these that the layman can use directly in his listening.

Another meaningful aspect of musical action is texture. This involves the action of the component parts. Although we usually classify texture as being homophonic or polyphonic, there is a wide range of variation within these general categories, and much overlap between them. Within homophonic texture, we can hear a solo instrument, a melody and accompaniment layout, or a single action in which all voices have essentially the same type of action on different levels. Within polyphonic texture, there is non-imitative polyphony, imitative polyphony, and give-and-take of parts, in which a texture that is essentially melody and accompaniment is animated by lively transfer and sharing

of the principal material, and also by polyphonic elaboration. This is, of course, a combination of the basic types of texture. Listening for the play of textures in a string quartet or symphony is one of the most fascinating musical games for the layman. As he listens for the action of the component voices, he becomes more and more alert to the treatment of motivic material, and understands how the life of a motive is bound up in its patterns of textural action. Also, in listening for texture, we can point to the action of the outer voices to show how they assume the principal burden of melodic movement in much music.

Melody, rhythm, and texture have important salient features which make them quite intelligible to the listener. Harmony, on the other hand, seems to be much more elusive, especially with respect to its larger aspects, such as key definition, modulation, and the relationship of harmony to structure. Still, without some idea of the role of harmony in a composition, the layman will miss some of the most important insights he can obtain into the music he is hearing.

If we treat harmony as that aspect of music which deals with the ways in which tones can be related to each other, apart from melody, rhythm, and texture, we can establish certain concepts that will have permanent meaning for the listener. Harmony, in this way, means much more than a vocabulary of chords or a set of rules for part-writing. Here are some of the basic ideas:

1. The idea of harmonic stability and instability. Certain intervals and chords create a feeling of stability, of rest, of arrival, and are effectively employed at points of arrival. These are perfect fifths, octaves, major and minor triads, and traditionally they have had the value of stability in our harmonic system. Other intervals, such as the tritone, sevenths, ninths, and chords which contain these intervals, give the effect of instability, unrest, and they contribute to the effect of musical movement. Compositions exploiting one or another type of sound will respectively have greater or less effect of motion or action in the harmonic sense. The play between specific types of stability and instability is a powerful agent in the building of musical structure. Awareness of stability and instability in harmony is an essential attitude in listening; it is another door through which one can look into the inner workings of the musical process.

2. The idea of a tonal center. When we hear a series of tones, one tone may assert itself as a point of reference. It may have the prominence of being heard first or last, as in plainsong. Intervallic relationships can also determine tonal centers; this happens when we hear the interval of the perfect fifth. The lower note of this interval stands as a point of reference and can be used to establish a tonal center. Medieval and renaissance music, as well as much contemporary music, make use of this device. Harmonic functions, created by the relationships of whole-steps and half-steps and by the upper and lower fifths of a given tone, are more difficult to

hear. If we isolate the tones 4, 7, 1, and 3 of the major scale, we can demonstrate quite clearly the binding relationship between these tones. The progression is a cadential formula and is the critical factor in the authentic cadence of tonal harmony. By this progression, key definition, as it is heard in 17th-, 18th-, and 19th-century music is projected. This is the most powerful means of creating the impression of tonal center.

3. The idea of cadence. Cadences are points of harmonic arrival. The authentic cadence as full arrival, the half-cadence as intermediate arrival, the deceptive cadence as delayed arrival — these are the effects which can be quite easily demonstrated and, of course, linked to phrase structure. Melody, rhythm, and texture will combine to assist harmony in these arrival effects, and the interaction of these elements must be explained.

4. The idea of shift of tonal center. This is a very subtle point, especially if the shift is the gradual, yet all-important structural shift from the tonic to the dominant in the first period or section of a complete form. Compare the harmonic sound at the beginning and the end of such a section in order to show how the first position represents home, harmonically speaking, while the second position represents departure, calling for continuation and eventual return. Perhaps the process can be clarified by listening for the instant at which the dominant key makes itself felt; this may often be through the intrusion of its own leading-tone. The layout of tonal centers as a structural blueprint for the entire piece, the movement between these as a continuous plan of consequential musical action — these are tremendously important concepts to drive home, even if little skill in hearing these can be developed in the course. Sudden shifts of tonal center, involving striking changes of color, are more easily heard, but as a rule, they have less structural importance than the movement between more closely related keys.

5. Harmonic color or quality of a piece. This creates a harmonic climate within which musical action of different kinds can take place. The open sounds of medieval music, the sweetness of renaissance triad sounds, the interaction of tritone chords and their major or minor triad resolutions we hear in 18th- and 19th- century music, the saturation of tritone dissonances in Wagner's harmony, whole-tone scales, polychordality, atonality, use of microtones and sliding pitches — all these have profound effect upon the music of which they form a part, both with respect to structure and expression.

In this paper I have tried to present theory as a means of developing an understanding of musical action and expression. The basic framework was the interaction of sound, movement, and arrival. Some

specific points about melody, rhythm, texture, and harmony were related to these general criteria. In this approach, we are trying to help the layman listen actively; we want him to know music not only as a set of sensory or emotional impacts, but as an organized, logical discipline which poses an intellectual challenge.