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THE PSYCHOLOGY OF MUSICAL APPRECIATION.

AN ANALYSIS OF THE BASES AND NATURE OF THE  
EXPERIENCE OF LISTENING TO MUSIC.

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THE PSYCHOLOGY OF MUSICAL APPRECIATION

AN ANALYSIS OF THE BASES AND NATURE OF THE  
EXPERIENCE OF LISTENING TO MUSIC.

by

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Adelaide.

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S U M M A R YTHE PSYCHOLOGY OF MUSICAL APPRECIATION.

1. The aesthetic response to music is the purest and highest kind of musical appreciation.
2. In aesthetic listening the subject is absorbed in the music qua music, identifying himself with the developing system of musical relationships.
3. Musical absorption tends to inhibit extra-musical experience.
4. Absorption or self-individuation in the music depends on the degree to which the musical system is grasped and followed.
5. Thus aesthetic listening has an intellectual basis. The subject grasps, follows and understands the relationships as regards pitch, rhythm and the dynamic qualities. He may know these only intuitively.
6. Progress from the lower levels of musical experience to the highest depends on the subject's musical receptivity and taste, and on how far these have been developed by training and/or experience.
7. Musical meaning is only definable in musical terms; and can only be understood by the subject who grasps the music as an organic whole.
8. The associative features of music cannot be entirely discounted in musical listening. At the highest level their effect is at a minimum.

9. The emotional element in aesthetic listening is bound up with the intellectual grasp of the musical system. Extra-musical emotion may be aroused by extra-musical factors, either objectively present (e.g. a programme) or subjectively supplied. In aesthetic absorption such emotion tends to be inhibited.
  10. Aesthetic emotion results from the subjective apprehension of a unique and significant musical whole, possessing beauty and value in the light of the subject's musical background.
  11. Aesthetic listening has no practical value, but conation enters the experience. Underlying interest in the music for itself is a certain exaltation due to self-individuation, the power to predict, and the unconscious feeling of creator-ship.
  12. Musical experience is not apparently vital to all types; but musical aesthetic enjoyment enriches the life and the capacity to experience of the individual.
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## INTRODUCTION.

All hearing is not listening. To no auditive experience does this psychological truism apply more pertinently than to music. Merely to hear music is hardly to have a musical experience at all. For music that is only heard is not experienced as music. It remains to those who only hear it simply a kind of pleasing noise. Or music may be heard as an accompaniment to some more engrossing course of experience which the subject is following. That this course of experience may be stimulated or suggested by the music or by factors external to the music but subjectively imposed on or read into the music, does not make it any the more a genuine musical experience. Hearing music only becomes a genuine musical experience when the subject does more than hear it. He must also listen to the music. He must listen to the music for itself. That is, he follows the music to the exclusion of all other objects. His interest in it is an interest in it to the exclusion of all other interests.

It is this experience of listening to music that will be the subject of the following analysis. For the sake of convenience I have tried to keep throughout to this distinction between "hearing" and "listening". "Hearing" includes "over-hearing", when the minimum of attention is directed towards the music. Such attitudes as the emotional and the associative, to name two only of the most general responses to music, include

a greater degree of attention to the music; but they still remain, to a large extent, mere "hearing." Real listening to music means that the attention is directed wholly to the music. It is an intellectual response in that the music is followed and understood in terms of its own meaning or musicality. It is also an aesthetic response inasmuch as the music is followed and enjoyed for the sake of its meaning and beauty.

Thus, true listening to music, or aesthetic listening, must be distinguished from all other kinds of musical responses which are only vaguely connected with the following of the music as music. The highest kind of musical listening may be described as aesthetic contemplation of the music. This is aesthetic experience par excellence. It is as nearly a pure musical experience as it is possible to have; and into it intrudes the smallest number of factors hostile to the true and sustained appreciation of the music. There are other experiences connected with the music which may also be aesthetic, but only that experience which involves the intellectual grasp of music as a formal (and beautiful) system of musical relationships is a musical aesthetic experience.

Listening to music means primarily therefore, - paying attention to the music. It also means following the music; that is, grasping the relationships, and grasping them as a system or a whole. Finally, aesthetic listening to music involves an appreciation of the beauty of music; which is a

following and a delighting in music as formal beauty.

It is my endeavour to show that musical listening in its highest form, aesthetic contemplation, depends on the subject's ability to maintain an intellectual grasp of the music as music. The aesthetic pleasure will be a pleasure bound up with this intellectual grasp, and can only be reached through it, music being only experienced as beautiful in so far as it is understood or followed as music. Aesthetic pleasure in musical listening depends on an understanding of the "musicality" of music, and an appreciation of the beauty of the whole which can only be reached through this "understanding."

The experience of "understanding" music is not a casual experience in which any individual can indulge, irrespective of his temperament, intelligence, training, and nationality. Rather it is the result of an evolutionary process; evolutionary both in regard to the individual, and to the race to which that individual belongs. Different races have different standards and conventions in art as in morals. In the case of music these conventions have come to possess a deep traditional significance. They have, indeed, almost become instinctive. The European system, for example, of dividing the natural octave into a scale of seven related notes, or twelve semitones, has come to be recognised as a fundamental division by European peoples. Up to the present day most of our music has been written in accordance with this convention of the

internal relationship of these notes within the octave. Even the most progressive experimentalists of today cannot wholly disregard the significance of this convention. Other races, however, have used other schemes, notably the Chinese who have ✓ a twenty-five note scale, and the Indians who also have divided the octave into many smaller intervals. These systems have likewise become backgrounds which are recognised as natural and fundamentally artistic for music by the races which use them.

Yet though such a background of accepted musical convention is taken over by each successive generation it must be remembered that it is also an evolutionary background. It is susceptible to infinite modifications. It is never static but progresses steadily onwards to a wider and freer significance.

This treatise is not, however, primarily concerned with the study of this changing musical heritage, which may be followed in any history of the art of music. It is with the individual listener that I am concerned; and the process by which the listener arrives at an "understanding" or an "aesthetic experience" of music is also a progressive or evolutionary one. As with all experience he starts off from the barest and least differentiated grasp of the object. The speed with which he passes from experience at the lowest level, the purely sensory, to experience at higher levels, depends partly on his natural aptitude or readiness to receive impressions, and partly on the ease with which he can relate, organise and system-

atise those impressions into a formal whole. This progressive experience which passes from experience at the sensory level to the successive levels of perceptual and conceptual experience will be described in the following survey. I shall also attempt to show that aesthetic listening, the highest form of musical appreciation, can only be reached through such successive stages. It must, however, be noted, that the term "conceptual" as applied to musical experience has a peculiar significance. Musical concepts - and this fact is of supreme importance to my position - must be accepted as existing independently of any meaning other than a purely musical one, for music, unlike all the other arts, does not undertake to have any representational significance, but is absolute and untranslatable. It must be emphasised again that aesthetic listening is thus bound up with intellectual comprehension. It is an intellectual process and not merely an emotional reaction, whether this latter be limited to an awareness of the fundamentally pleasant or disagreeable feeling-tone qualities of the physical elements which make up music; or whether it be enriched by an extra-musical significance or emotional meaning which is imposed on the music; or whether it consist of that legitimate affective experience which I later shall describe in the chapter on aesthetic emotion in music.

Before I pass on to the main argument of my thesis - the analysis of the experience of the musical listener - it is as

well to define what I really mean by "aesthetic listening" by giving a short description of a personal experience which has always seemed to me to be one of the purest examples of aesthetic contemplation which I have ever experienced. A brief account of the circumstances which precede and make possible such aesthetic experience is not out of place.

When we listen to music which we feel is beautiful it is obvious that our experiencing it as beautiful does not depend solely on qualities in the music itself. (1) It is not only what the music brings to us but what we bring to it that counts in our experience. What we bring to the music - in other words, our receptivity - depends on many things, as I have already indicated. There is our temperament, - our inherited predispositions depending partly on our race and nationality. There is also the nature and structure of our physical make-up. In illustration of the importance of this latter aspect we may take the case of the ability to recognise pitch-relationships. It has been noted that "our congenital ability in this respect differs individually. There are some individuals, however, who are not normally affected by musical relationships in spite of a maximum of practice and effort to pay attention to whatever may be in their auditive consciousness." (2) Thus the actual

(1) This aspect is dealt with in Chapter XII.

(2) Max Reger. "Pitch Relationship" in Attributes of the Sensations, Psychological Review. March 1904. P.99. Charles Lamb seems to have been of this class.

structure of the ear and the correlation between brain and ear must be taken into account as well as our past experience, the degree to which we have organised that experience, and the musical experience of the race. These are all determining factors in our musical experience; but there is also another factor, not quite so vital as these, but none the less significant. That factor is our immediate attitude at the moment of beginning to listen. What we bring to the music will depend partly on our state of mind at this initial moment of listening. It is perfectly possible either to take up an attitude of mind or an emotional disposition with regard to the music, probably predetermined; or not to do so. We may come to the music ready, even eager to follow it, and to try to possess it contemplatively or aesthetically. Or we may come to the music with the sole desire to indulge ourselves emotionally. Either we want to drown an existing emotional state (or mood) in a welter of sound, or we wish to prolong to the utmost such an emotional state, to take pleasure in indulging ourselves to satiety. Or again, we may have to solve some problem, and therefore put ourselves in the way of hearing music to afford ourselves a relaxation from adjustment to practical life by attending wholly to the music; or we desire to use the music as a whet to sharpen our critical and deliberative powers in order to attack the practical problem from a new angle. We may come to hear the music ready to indulge in vague trains

of associative thought and imagery evoked and sustained by the musical flow of notes. Lastly we may come in a critical frame of mind, ready to follow the music in order to widen our musical knowledge by taking up an objective attitude with regard to the music.

All these varying attitudes I shall discuss in greater detail in the first chapter on "Musical Attention," and also any others which may be included with slight modification among those just described. I shall content myself here with remarking that they are all of common occurrence, so that a music-lover will most probably go to a concert prepared to respond to music in one of these ways. He may not have been conscious that his attitude was pre-determined, but nevertheless he is in fact predisposed in one direction or another. The very act of going to a concert means the taking up of a certain attitude with regard to the music; even if it is done with the highest musical motives. The music-lover usually goes to listen, though there are certain exceptions.

But there are cases where the listener does not go in search of the music with his mind made up to listen. The music may come upon the listener. It is an experience of this kind which I had and here shall try to describe. (An instance may be observed in the case of those members of the audience who go to see, but stay to listen. Their attention becomes diverted from their immediate and avowed object and is fastened on

the music simply because of the overwhelming nature of the musical stimuli. This, however, is not entirely the best example of what I meant, although such people do come to an appreciation of the music which is not deliberately sought.)

I recall one memorable afternoon when, passing a cheap amusement-place in an English country-town, an exquisite musical phrase struck my ear unexpectedly. Something familiar about it caused me to stop and listen more attentively. It was a phrase from the first movement of Beethoven's Choral Symphony, a familiar and much-loved work. The surroundings were at the same time squalid and romantic. At the end of the street a church-tower stood out against a deep blue sky, flushed here and there with the first glow of a northern sunset. Immediately about me was the jostling of a Saturday market crowd, and from the amusement-room came raucous shouts and ribald laughter. Yet I was forced to remain at the door for over quarter-of-an hour, as I afterwards reckoned, held by the spell of the music. It was not merely a case of sensuous indulgence in beautiful sound contrasting with the sordidness of the immediate surroundings, and enhanced by the natural beauty of sky and sun. I welcomed and followed each familiar note-grouping. I felt with a thrill of recognition the beauty of the wood-wind notes as the theme given to them emerged against a back-ground of strings. I felt these notes subside as the strings rose into prominence only to hear them gradually emerge

and swing into the extended treatment of the end of the movement. Every artistic device, every detail of thematic development and orchestral treatment, every pitch-and-rhythmic-progression I followed and lived. "Lived" is indeed the only word to describe my intense absorption in the music. All these musical threads I recognised and followed, without, however, objectifying them; I followed the music as though I were one with it. My whole being seemed to expand and pulsate in sympathy. -Where the music swelled to a crescendo I felt myself similarly aggrandisized and ennobled; and again seemingly suspended almost to breathlessness as the music dwindled and a sudden hush succeeded. My mind, nay my whole body, seemed to leap from note to note, not singly, but combining many such movements as the complexity of notes increased. I became the instrument transmuting the music, seeming both the player and the creator. I was even more - I was the music. There was a glorious sense of achievement and self-realisation; I was almost unconscious of my surroundings; nor was I under the stress of any particular mood. I had not begun to linger out of a conscious purpose to enjoy. I was not predisposed to listen, as at a concert. I listened because I could not help myself. The music took possession of me with its beauty.

At a concert there is always a tendency to take up an expectant attitude; or to predispose oneself to "pay attention", or even to listen objectively. Such a conscious seeking

of the aesthetic attitude like the predisposing of oneself to follow every theme, to grasp and enjoy every detail of the whole musical structure, seems to inhibit the attainment, at least in the beginning, of the attitude of aesthetic contemplation, which is partly spontaneous. Yet such an attitude is nevertheless a necessary one in the evolution of the true "thorough-paced" listener. It is sometimes necessary to set oneself to listen objectively in order to prepare the ground for aesthetic listening at a later period, when musical relationships and the "form" of a work of music which at first seemed unintelligible, can be readily grasped and understood because of the greater facility which the training by objective listening brings. Then this conscious awareness of setting oneself actively to follow the music passes into the fuller interest of being absorbed in the music. The music takes hold of the listener and carries him with it. But the listener does not cease actively to follow the music. He follows the notes, though he need no longer make their relationships explicit, as he does in objective listening. He grasps their musical connections in relation to pitch, duration, intensity, timbre and texture. He follows and grasps the coherence of the musical structure - becoming increasingly aware of its progressively complex yet unified nature. He discriminates, analyses and synthesises at the same time, grouping all his manifold impressions of themes, rhythms, instrumental or vocal parts,

arrangement and structural design - all of which make up the musical "form" which is the work of art - into a complex musical system which, in the most favourable circumstances, finally satisfies him as being a complex and beautiful artistic whole.

There is a certain difficulty in analysing this particular state of musical absorption, for one of the conditions determining it, as I have already pointed out, is that the subject ceases to be aware of himself as listening. He can only attempt to recall the nature of his experience when it is all over. Something of the same experience has been ascribed to the musician in the act of composing. To the truth of this the musician himself bears witness. Gustav Holst writes of the composer at the critical moment of inspiration:- "A composer is usually quite unconscious of what is going on."<sup>(1)</sup> Presumably he means that the composer is unconscious as to how the relationships of notes and rhythmic-outlines emerge in his mind. He cannot be unconscious of their nature and identity. He is aware of these things in the first spontaneous grasp of the new musical idea, though he does not make them explicit until he has thought about them, and finally interprets them in terms of musical symbols. Arthur Bliss describes the moment of inspiration as a "state of clairvoyance in which abstraction

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(1) L. D. Green, On Inspiration. P.29.

from one's environment and everyday life is momentarily complete." He also adds that these moments are the "times of the greatest receptivity, when all the senses are alive and responsive to a marked degree."<sup>(1)</sup> Arnold Bax writes: "We all waste a certain amount of time in the attempt to express states of feeling, the depths of which we are temperamentally incapable of plumbing . . . . the vision may suddenly become blessedly clear, possibly through lack of self-consciousness."<sup>(2)</sup>

"Mozart frequently said that the ideas of his creations came to him as in a dream. Gluck said thoughts flowed to him, and he knew not whence they came."<sup>(3)</sup> It is worth noting from these quotations how close is the connection between the experience of listening to music at the highest level - aesthetic listening - and the experience of composing music. Both depend on the receptivity of the subject and his sensitivity to impressions received either outwardly or inwardly. The ability to listen, like the ability to compose, demands a highly developed pitch-perception, a well-organised rhythmic sense, and a developed power of coherently following (in the case of creating, of constructing) an extended musical form; as well as a feeling for the sensuously beautiful in sound and rhythm.

(1) Ibid. P.19.

(2) L. D. Green, On Inspiration. P.18.

(3) W. Mitchell, Structure and Growth of the Mind, P.352.

There must be also present in each case a comprehensive back-  
 × ground of musical experience, both inherited and acquired,  
 which the subject can draw on unconsciously. (1)

There is still another important feature which is common to the attitudes of the composer and the listener. In both the experience of the composer at the moment of creation and the experience of the listener who is following the music at the aesthetic level, there is complete forgetfulness of self. This might, however, be regarded as a translation of the self into the terms of music, or a translation of the music into the terms of self, so closely are the two involved. What takes place is a kind of sublimated "self-individuation" on an intellectual basis. I emphasise the fact that it is intellectual (or conceptual, in the purely musical, formal sense) because there is present a kind of super-awareness of every variety of musical relationship in the music. That the relationships are known or grasped can be recognised when we realise that the composer must make them explicit when he comes to record his

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(1) By "inherited" I refer to the almost second-nature knowledge of the musical relationships and systems which have been established in the past and which are accepted in the present as a starting-off point for further musical development. By "acquired" I mean the vast familiarity with music which the composer and listener have acquired since birth, both unconsciously, through haphazard hearing, and consciously, through study and objective listening. This familiarity must also embrace a knowledge of styles and periods, as well as a knowledge of the tonal, rhythmic and textural values which make up the art of music. See Chapter I.

musical ideas. The listener also does the same thing when he objectifies the music in order to criticise or judge it, or to improve his musical experience by working out those relationships which escaped him in an incomplete aesthetic appreciation of a difficult work.

There is, however, not only forgetfulness of self, there is abstraction from one's environment and from everyday life. Ideas of an extramusical significance do not intrude into a pure musical aesthetic experience. As we shall see in the chapter on "Musical Attention" the course of musical experience in aesthetic listening is so full and complex that there is no room for other interests.

Lastly, in both cases, the experience is not deliberately achieved. It is a spontaneous experience. <sup>(1)</sup> The composer may prepare the way by thinking along musical lines, but his inspiration cannot be forced. It is a sudden flash of "vivid imaginative thought", to use Mr. Arthur Bliss's words - thought, of

(1) W. Mitchell, Structure and Growth of the Mind, P.352.

Discussing "the thought in creating", Sir William Mitchell finds that "the artist's object is individual; it  
 x takes form and expands by his absorption in it. There is freedom from reflection, caution, and criticism; instead of collectedness, there is a self-estrangement, a being rapt, the unexpected spontaneity of a dream." This quotation is apt not only as an illustration of the creative attitude, but as revealing how closely the attitude of aesthetic absorption (see my own experience) approaches it.

course, to be interpreted in terms of musical meaning.<sup>(1)</sup>

The listener may also attempt to woo this most complete and satisfying kind of aesthetic absorption. Perhaps, not because of failure or inadequacy on his part, but through some imperfection in the music, he cannot achieve it. The music may be followed; each relationship is apparent; the structure or formal outline of the work receives his unflagging attention; yet the listener cannot pass into the state of aesthetic absorption which is so desirable. In another case, it may steal on him unawares, and he only becomes conscious of himself as listening to music when the music ceases.

It is seldom, however, that such a state of pure aesthetic contemplation exists over a long period. Criticisms as to technique or style, as to interpretation, or the defects of instruments, or comparisons of the music with the work of other composers or with the music of other periods, are bound to intrude themselves. This is the case especially when the presentment of the music is inadequate, or unsatisfactory from an artistic point of view. A good listener, however, is able, to some extent, to remedy such defects by using his imagination. We learn to discount the mechanical whirr of the gramophone or the imperfections of recording in the same way as we disregard the noise incident to the mechanical act of performance on any

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(1) L. D. Green, On Inspiration. P.18.

instrument, like the piano, for example. Composers show a wonderful toleration of indifferent pianos. Liszt, for example, could get along with a positively decrepit instrument. The explanation is that musicians hear so vividly with the inner ear that they are indifferent to the actual sensuous quality of the sounds by which the music is conveyed. But though the listener can thus discount the imperfections of the mechanism used to body forth the sounds, and even, to a certain extent, the imperfections of the sounds themselves, it is far more difficult to disregard flaws in the interpretation of music, and to achieve aesthetic absorption in spite of faults of in-artistic execution. It is still more difficult - in fact, impossible - to disregard flaws in the actual work of art. It must be a work of pre-eminent beauty, composed with great technical skill and perfect artistry, adequately and artistically performed, that does not obtrude some of the above-mentioned defects on the listener. The perception of all such flaws militates against the pure contemplative attitude. Musicians have confessed that they would rather hear one well-nigh perfect performance of a great work of music in ten years, than hear the same work indifferently performed a dozen times in a single year. (One would certainly make the reservation that if it was a question of never hearing such a work, or of hearing it only indifferently played, one would choose the latter alternative.)

Most often the listener himself is at fault, should he be unable to attain the highest level of musical appreciation. His musical experience may not be comprehensive enough to follow a complex work with perfect ease from beginning to end. He may be able to grasp the musical relationships from moment to moment, only to lose the thread of the musical development where a certain passage escapes him. He may pass from the exaltation of the contemplative ecstasy to blank bewilderment as his ear is confused by a whirl of notes. Such gaps in the progressive following of the music do not entirely prevent the attainment of the aesthetic attitude for short periods; but they destroy the sense of coherence of the formal beauty of the music which is the chief factor in determining aesthetic enjoyment. If the "form" of a musical work cannot be followed in all its logical musical connections it is obvious that much of its musical value must be lost.

The same effect occurs when the listener does not follow the music all the time, but drops the thread in order to follow some other course of experience. He may pick up the thread again, but again he has lost the significance of the formal beauty of the music. It is certain, however, that listening at the aesthetic level cannot be reached easily. Such listening requires a certain amount of mental effort, to begin with. This we shall see in the Chapter on "Musical Attention", and in the chapters dealing with the different aspects of listening at the

perceptual level. True musical listening is undoubtedly an aesthetic experience of the greatest value and an ideal worth striving for. But even those who desire to attain it (and there are many who do not, and who are contented with the easier pleasure which accompanies musical experience at a lower level) find it difficult to remain completely absorbed throughout a whole work. To follow, without any intrusive thought or feelings, the notes in all their relationships both immediate and extended, is a continual strain, even though it may be a pleasurable one, in the main; and to do this demands both practice and natural aptitude.

No rules can be laid down as to how the individual should listen to music, or as to what is the most valuable attitude to take up. To me the experience of music as a formal unity of relationships seems to be more valuable as a significant experience of beauty than any indulgence in emotional or associative interpretation of the music. This thesis does not set out to judge which is the more valuable - the pleasure which the satisfaction of achieved purpose affords, i.e. the pleasure which attends the successful effort to grasp and so "live" the music, which in aesthetic absorption is united with interest and pleasure in the music itself for the sake of its own meaning and beauty; or the pleasure which is the result of being agreeably stimulated (at the sensory level), or which attends the satisfaction of making music express something which it is not in

itself - i.e. taking pleasure in literary or emotional significance which is subjectively imposed on the music. The experience which brings the latter kinds of pleasure is not, from my point of view, a pure musical experience at all. The opportunities of experiencing such inferior pleasure are very much more numerous than those of having true aesthetic pleasure. Almost any kind of music can give the lower pleasure. Such music need not be followed "musically" at all, or only very slightly. Nor does such pleasure increase with greater familiarity or with a knowledge of the work, since it is mostly those aspects which appeal readily to the senses which afford this kind of pleasure. Nor need the musical relationships be clearly followed in order to be given a "literary" or "associative" or "emotional" significance. A difficult and technically erudite work, such as Elgar's Second Symphony would bring no increase of either of these lower pleasures on successive hearings. It is doubtful, however, whether such a work would have any such instant appeal through its sensuous qualities, as they would seem to the general ear to be obscured by the advanced and complex idiom in which Elgar's musical thought is expressed. In such a work it is almost impossible to enjoy its sensuous effects (beauty of tone and all its dynamic qualities) from an absolute point of view. The sensuous effects only emerge as beautiful when the significance of their use to express the musical meaning is understood. If the musical meaning is not

followed, it is not always possible to separate, for example, contrasting timbres from the welter of massed notes which make up the amazingly rich texture of this work. Texture only appears rich and beautiful as "timbre-combination" when the musical knowledge permits the relationships of the notes to be followed.<sup>(1)</sup> But the pleasure of the thorough-paced listener who approaches this work from the intellectual aspect will become increasingly richer and aesthetically more valuable with every re-hearing. It may, however, reach the point of satiety; but this is less possible in the case of such a complex work than it would be in the case of a Haydn Symphony, for example.<sup>(2)</sup>

- (1) Compare the passage for brass at the end of the funeral march in Act II of Richard Strauss's "The Egyptian Helen." To the unmusical ear this passage sounds excruciatingly hideous. There is no pleasure at the sensory level. To the musician pleasure at the sensory level is present underlying his interest in the passage at a higher level. It is interesting because he can perceive the movements of the parts and understands the harmonic relationships underlying them. This also permits him to enjoy the passage as pure sound, since he can separate each thread from its context.
- (2) Professor Edward J. Dent has stated that it is the novelty of a musical work which appeals to him. When that is gone the music has no more interest for him. I believe, moreover, that he claims only a single hearing is necessary to exhaust any work of music. Surely, I venture to suggest, there is some absolute value in great music, some perfection of form or arrangement, which even when familiar does not lose its charm, and which persists as a source of aesthetic pleasure. Some of Mozart's simplest melodies have a perennial beauty for me. cf. Chapter VII.

Though a first approach to the Elgar Symphony might be difficult even to a thorough-paced listener, with increasing familiarity the music gradually becomes more easy to follow. The earnest listener soon rises to a grasp of the music in its formal aspect, the necessary preliminary to the perfect experience of this work as a whole of formal-musical beauty. It is this progressive musical experience which finally culminates in aesthetic listening, as I attempt to describe it in the chapters on musical experience at the different levels of sensory, perceptual and conceptual. It is my belief that any other kind of musical experience which does not start from a progressive grasp of musical relationships and their structural connections and so culminate in the highest level of aesthetic contemplation or aesthetic absorption, is not true listening to music at all. There is the possible exception of objective or critical listening. This also is an intellectual attitude and is in a sense the basis on which the aesthetic attitude must be built up. We have seen that it involves the perception of the relationships and their purpose (or meaning) in the formal scheme of a musical work, the following and recognising of music as a complex musical unity or artistic whole. But the fundamental difference between this objective attitude and the aesthetic attitude is that in the one the relationships are made explicit in order to be understood and enjoyed objectively, or critically examined and judged. The other is a purely subjective

state; a living experience of music; a following of the music implicitly; rather than a consciously-made analysis and synthesis of the music from an objective standpoint. In aesthetic contemplation the listener accepts the music; his interest is an aesthetic interest on an intellectual base - an interest in the music for its own sake as being an expression of formal beauty.

Moreover, in the critical attitude there is the thought of an underlying purpose. The music is not listened to in order to be enjoyed, but to be criticised and judged (either on the spot, when the listener constantly makes explicit the relationships and refers them to his standard, i.e. his musical background; or later when he recalls the music in order to criticise it.) But this purposive attitude may not be consciously felt throughout the experience, particularly when the listener reserves judgment. Its presence, however, is usually enough to prevent the highest kind of aesthetic absorption. Further, the listener may constantly make explicit the musical relationships not only in order to criticise them, but in order to know them again, either in a new musical context or in the same work heard a second time. He may also be content to get satisfaction from merely recognising these relationships, or by following explicitly the formal scheme of the work, when he recognises for example, how the development of a movement in sonata form is an expansion of themes he has heard before in the exposition;

or when he recognises an old theme in a new key, and consciously records the relationship (or seeks to record it) by making it explicit, without giving himself that mystical experience of self-individuation or aesthetic absorption in the music. This kind of listening occurs frequently in students of music who wish to extend the base of their intellectual interest, or who are content to draw all their pleasure from an appreciation of the skill with which the composer has handled the musical material, without desiring to identify themselves with the flow of the music.

Thus, in the objective intellectual attitude of listening the relationships and their reference to the base are always made explicit, if not actually during the music, later when the music is recalled, which is like having the same musical experience again, only less vividly.

In musical aesthetic absorption it is enough to be aware of the relationships and to be able to synthesise them into a coherent whole without making them explicit. But the listener must be aware of them; that is, he must follow them, though he need not think them, otherwise he sinks from the heights of pure aesthetic contemplation into a state of sensuous enjoyment of sound. But in both the objective critical attitude and the subjective aesthetic state, there is expectation, and also satisfaction or dissatisfaction according as that expectation is fulfilled or not. In the first case, what is expected to sat-

isfy is thought about, and according as it does or does not satisfy when it comes is approved or condemned. In the second case, though the expectation may be definite enough, its definiteness is not thought about - made explicit. We feel satisfaction or dissatisfaction (varying in degree with the definiteness of our expectation and the degree to which it is fulfilled and thus depending on the extent to which we have organised our past musical experience) when our expectation reaches its final goal at the end of the music; but we do not stop to deliberate what are the elements which controlled that satisfaction or dissatisfaction.

In both musical aesthetic absorption and critical listening expectation and its fulfilment depend on an intellectual awareness of certain relationships implicit in the one case and explicit in the other; and also on the capacity to synthesise these into a coherent musical whole. This intellectual awareness of, and the corresponding interest in, the developing musical whole are the fundamental facts of musical listening at the highest level. Through them come aesthetic enjoyment and aesthetic satisfaction.

The following section attempts to describe the way in which the true listener discriminates and synthesises musical relationships; and also to discuss the extent to which his native capacity can be developed by practice and training. In the second section I have dealt with those extra-musical ele-

ments, the emotional and the associative factors, which, though unessential to pure aesthetic listening, nevertheless are nearly always present in some degree in all musical experience. I shall attempt to show that the value of these elements in musical experience is not a musical value, but that in many cases, the connection between them and music as a formal art is so intimate and long-extending that it is impossible to discount its importance.

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PART I.

AN ANALYSIS OF THE COURSE OF MUSICAL LISTENING.

CHAPTER I.

MUSICAL ATTENTION.

CHAPTER I.MUSICAL ATTENTION.

By attention to music I mean attending wholly to music for the sake of interest in the music itself, and not for the sake of any other interest which is in some way connected with the music. Thus there are many people who think they are attending to the music when they are really following trains of thought, or visualising a series of pictures suggested or sustained by the ebb and flow of music. Even where such associative trends, either of thoughts, of images, or of dramatic events, seem very closely connected with the music - when the music has a definite programme value, for example - attention is not wholly centred on the music. It is divided between the two interests - interest in the music for its own sake, and interest in the pictures or thoughts which run parallel to the course of the music. There may be present, though not simultaneously, an extra-musical interest - when the music is heard for the sake of what it suggests or what it is supposed to represent (in the case of programme-music) - and a purely musical interest which is in inverse proportion to the degree of the extra-musical interest.

Fusion of these two interests is not possible. Divided attention, which means that there are two parallel sources of interest, militates against either course being followed very thoroughly. It will, however, be the easier course which will

become prominent in attention. The musical course, so much harder to grasp than the course of thoughts or images, or the commonplaces of mental experience, will go to the wall, unless there is a very strong conscious desire to follow it. But in that case the very strength of the interest in the music tends to inhibit the other interest. At the best, however, instead of fusion, there may be a kind of intermittent or fluctuating attention; interest swinging from one course to the other.

In an experience of this nature the music is given a value beyond itself, so that it is no longer a question of aesthetic interest in the music alone. When the subject "listens" or "hears" associatively (when he follows the music for the sake of the associations it brings) it is not the music he enjoys but the suggestions it evokes. He is so busy attending to, and enjoying these suggestions, that there is little or no place left for interest in the music. In such an experience he is a listener only at intervals. There are perhaps some intervals occupied with purely attending to the music until an interesting train of thought or associative trend is evoked, which is followed to its conclusion pleasantly accompanied by an agreeable musical background. Possibly the music, by reason of its elemental forcefulness, may again thrust itself upon the subject, and again become the object of his attention for a time, until a new train of ideas is suggested.

Similar to this kind of experience where the music is

given a value beyond itself is the experience of the subject who symbolises his musical experience. We may take the case of the subject who has a bias towards philosophic speculation. His past musical experience may be only very slightly organised, and may owe little or nothing to direct training. Such a person may symbolise the flow of the music with its conflicting and reconciling elements, into a formulating and a resolving of the eternal problems of life and death, joy and sorrow; and see in the music an expression of those inner spiritual conflicts which engage mankind. This listener may, for example, translate the first movement of Beethoven's Fifth Symphony as an expression of the prolonged striving of man to discover the meaning of existence, whither it is tending, its ultimate value, or some other question of a like fundamental importance. Alongside his more or less discriminating attention to the music goes an intellectual interest in the philosophic issues into which he symbolises the music. His final satisfaction depends on how far he can make his speculations fit in with the music. That is, he translates musical statements into philosophic problems, develops them during the musical development, and sees their explanation or fulfilment in the final recapitulation and resolution or in the final cadence. All this is usually only very vaguely realised. Such speculations may not be explicitly formulated. The interest which attends this kind of experience is more closely bound up with the music than is the interest of the person who listens to music for its evocations. It

presupposes the ability to recognise and follow a musical statement as a musical statement, to perceive and follow, though it may be only in a vague and fragmentary way, its development, and to recognise it again in a new key, and so on. But these musical elements are only indifferently followed from a musical point of view. Usually such a subject gets the greatest amount of satisfaction from the slower and simpler types of music, especially those where the themes are well-defined and not developed in too complex a manner. Obscure harmonies or involved contrapuntal treatment mean that the listener is confused and prevented from following his speculations. Music which is rich in fairly simple harmonies, or which possesses appealing melody, is the type such a listener prefers. One subject who constantly indulges in this kind of philosophic interpretation of music confesses to being fonder of Beethoven's slow movements than almost any other kind of music. Such slow movements, often easily followed variation movements, are precisely the type of music I have described. This kind of philosophic listener is usually highly intellectual and emotional, but possesses very little, or only poorly developed musical knowledge or technique. It is just because this type is not technically musical that he seeks to augment an otherwise barren musical experience by filling out his interest in the music by interest in the working out of his philosophic ideas. He makes up for the poverty of his enjoyment of the music as music by giving it value be-

yond its intrinsic musical value, in terms of what possesses deep significance for him. It would be interesting to see what changes in his attitude would follow should he receive the training that he lacked. I have had no opportunity of making observations in this direction, but I am sure that in proportion as his grasp of musical relationships became more clear and definite, his desire to amplify the musical meaning by giving it a philosophical significance would lessen correspondingly.

This is one example of divided attention in musical experience. More usually we have examples of divided attention when the subject listens in the way I have called "associative." Many examples of the associative response to music are discussed in detail in Professor Myers's study on "Individual Differences in Listening to Music."<sup>(1)</sup> Professor Myers goes to the underlying principle of the associative trends described by his subjects and shows how the fundamental connections of music with courtship, dancing, and rudimentary language, are revealed in associative hearing. In a consideration of the associations evoked by music, we come straight to the contentious question of programme or representative music versus absolute music. The following of a programme which the music is supposed to illustrate may be discussed under the associative attitude. The subject may get an immense amount of satisfaction

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(1) C. S. Myers, "Individual Differences in Listening to Music"; in The Effects of Music, ed. by Max Schoen, pp.22 and 35.

out of this experience, according to the degree in which he makes the programme fit the music, or vice versa, as the case may be. Here is clearly a case of divided attention. Half his attention must go to the music or he would lose the connection between the associations (the programme) and the music, and half his attention must go to the programme or he is missing something which the composer (or perhaps the annotator!) tells him is necessary to the proper appreciation of the music. Even here he need not follow the music in a thoroughly musicianly way. It is often sufficient for him to relate certain obvious imitative features of the music to the programme in order to be perfectly satisfied. Take, for example, the march in Tchaikovsky's "Pathetic Symphony." The every-day listener of the associative type gets an enormous amount of pleasure out of the obvious march-rhythm, the clever imitation of the jingling of spurs and equipment, and the bugle calls. The recognition of these effects, plus a certain feeling of well-being, derived from what I shall later describe as the "dynamism" of music, is the music for him. He does not look for anything more. The musician or intellectual (aesthetic) listener perceives all this, for it is indeed meant to be perceived, but only as secondary to the arrangement and development of the musical material.

But even musicians of taste and culture may listen programmatically, particularly when the music is obviously "pro-

gramme". Students, as well as children who are making their first acquaintance with music (both as regards listening and interpreting) listen almost invariably in this fashion. Even when the music is definitely not programme they are often encouraged to listen programmatically in a mistaken attempt to better their musical understanding! In many editions of music for beginners the approach to music is often representative, or through a programme. Take, for example, those pieces where a short descriptive verse heads the music. Though such a method may help to interest the child in the music by providing an obvious connection between the music and his everyday life, in my own opinion it is a practice to be avoided. It is not easy to get rid of the conviction, once formed, that music should be representative, - that it should express some sort of programme, if not of events, of actions, or of emotions.

The description of a personal experience of a performance of Strauss's "Don Quixote", (almost my first acquaintance with the "Symphonic Poem" form, and the first time of hearing that particular work) may serve as an example of the associative response to music. In my experience of this work recognition of the suggestiveness of the themes, as well as amusement and interest in the technical skill (particularly the imitative effects produced by orchestral colour, for example) was an outstanding feature. (1)

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(1) I quote here the third theme of the Introduction which, so say the critics, depicts the grandiloquent nature

of the hero, and his habit of arriving at false conclusions:

Handwritten musical score for Clarinet and Piano. The score is in G major (one sharp) and 4/4 time. The Clarinet part (top staff) features a melodic line with slurs and accents. The Piano part (bottom staff) features a bass line with slurs and accents. Handwritten annotations include 'clar.', 'f', 'ausdruckswoll', 'Woodwind 56', 'dim.', 'p', 'f', 'dim. pf', and 'etc.'. The score consists of five measures.

The elusive harmonies which follow the arpeggiated common chord certainly give a sudden unexpected turn to the musical phrase which would suggest (but most likely only to the musician who can understand the harmonic progression, and who is on the look out for such parallels) this human fallibility of Don Quixote.

A truly musical interest in the themes as themes, and in their development and place in the formal structure of this work was, in my case, subordinated to this extra-musical interest in noting, following, and comparing how well, or ill, the programme fitted in with the music. I also experienced a certain critical interest (not entirely aesthetic) in the success or non-success of this parallel, complicated by a satisfaction which varied according to the degree in which I was able to reconcile the music with the programme. This interest and this satisfaction were of quite different quality from that aesthetic satisfaction I had experienced in the contemplation of an extended work of absolute music.<sup>(1)</sup> Judging from the faces of the audience mine was not an isolated experience. Amusement was on every face - but an amusement incompatible with a state of aesthetic absorption. It would be possible to listen to this work from an aesthetic standpoint, but it is doubtful whether such an attitude could be sustained for long as it would be difficult to discount certain effects obviously imitative of the story - the baa-ing of the sheep in Variation II, for example - and the whirling of the wind-mills in Variation I. The mere knowledge of the title would be sufficient to prepare the listener to expect such obvious suggestions.

Programme music,<sup>(2)</sup> it has been claimed, may indeed possess

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(1) See Introduction, pp. 9-11.

(2) It is interesting, though not essential to the argument,

Footnote continued:

to inquire why a composer should choose to express himself in Programme or Impressionistic Music. A composer may be skilled in certain forms of his art yet not possess the architectural faculty of building a major work that is artistically beautiful from the standpoint of musical form alone. For the organic principle of formal unity he may therefore substitute a "programme" or an "impressionistic idea", in order to provide himself with an external framework into which he can fit his musical ideas. Thus he employs a literary unity of form instead of a musical unity of form so as to give his work a superficial logical completeness or coherence. Such is the method of Richard Strauss in any of his Symphonic Poems.

The composer, however, may be able to combine the two principles successfully, and produce a work like Bach's B. Minor Mass, or Verdi's "Falstaff." Such works are not wholly musical in aim, for they are also frankly intended to express a definite non-musical conception; so a compromise is made. Their value as music, however, is always assessed from the absolute musical standpoint, and has nothing to do with the excellence of the dramatic, literary, or religious conception.

The composer here chooses to write representative music, not because he is deficient in absolute musical constructive power, but because of a desire to represent extra-musical things or events or ideas by means of music. Thus we have Bach's "B Minor Mass", and, on a lower scale, his "Capriccio on the Departure of his Beloved Brother", which is pure descriptive music modelled on Kuhnau's Bible Sonatas.

There is also music, which though not definitely "programme", nevertheless relies on an "impressionistic idea" for its unity. Such a work as Debussy's "La Cathédrale Engloutie" produces a certain atmosphere, which is suggested in the first place by the title. The listener might hardly gather, of his own accord, the impressionistic significance of the music without that title; but to the listener who knows the story, or the title simply, all the imitative effects of bells and the muffled thundering of the sea will be very apparent. Another listener, ignorant of the story, may hear only musical effects.

Debussy did not set off to imitate a particular sound. He perhaps was inspired to compose with the

Footnote continued:

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remembrance of the story clouding his mood, and certain details significant of the story crept into his music. He obviously could not convey the story; he could merely suggest certain aspects of it which could be expressed spontaneously in musical terms.

great musical value and beauty, but though it may therefore be appreciated from the purely musical standpoint, such music has rarely in itself sufficient organic unity or musical coherence to satisfy completely the musical aesthetic sense.

If a work of Programme Music is good as music what then is the difference in the nature of the pleasure it arouses in the listener who follows and enjoys it in terms of absolute music - irrespective of whether he knows the story or the title or the extra-musical conception - and the pleasure which the same listener would derive from it knowing these and using them as a starting-point from which to give the music a "literary" or "associative" meaning?

I suggest that the thorough-paced listener who follows the music as music, i.e. who enjoys the music for its own intrinsic meaning and beauty, would have an aesthetic experience of greater musical value than he who follows the music for the sake of making the correspondence between the music and the conception external to the music. Both may be aesthetic experiences, but while the first has a purely musical value, the second possesses less musical value, and derives a secondary aesthetic value from interest in the significance of the story etc. There would also probably be a mixed element due to interest in the success of the compromise between the musical aim and the extra-musical aim. Appreciation of the skill which has gone to adapt the music to the programme, or vice

versa, thus complicates interest in the "programme" for its own sake, and a fluctuating musical interest. Possibly the aesthetic value of the story may seem greater than the aesthetic value of the music as absolute music, yet nevertheless such aesthetic experience must be distinguished from the pure musical experience where the interest is in the music for its own sake. The two aesthetic interests differ in quality.

The satisfaction and aesthetic pleasure I received in following some of the themes and their musical development at the above-mentioned performance of "Don Quixote" - enjoyed without appeal to their programme-context - was of a different nature from the pleasure I received when I listened programmatically. When played on the piano at a later date, when the music lost much of the suggestiveness due to orchestral colour, those passages which possessed musical value did not lose their distinction, while those which owed their effectiveness more to the success of the imitative play of orchestral colour (as in the "baa-ing of the sheep" episode) were less interesting. No doubt (I had) been more familiar with the musical form of the work at my first hearing, and less taken up with the programme, the deficiencies of the musical structure as compared with the perfection of formal beauty in some major works of absolute music, might have been more obvious. This conclusion is borne out by a previous experience of Strauss's "Don Juan" heard on

the gramophone. Possessing only a vague and generalised knowledge of the story of Don Juan, and being entirely ignorant of Strauss's programme, I was forced to follow and enjoy the music on its own merits. The aesthetic pleasure and satisfaction derived from hearing this work (several times) were fairly constant. The moments where my interest flagged seemed to correspond with the places where I thought the music lost its point (where there seemed to be no musical "progression" or musical purpose). Probably a knowledge of the programme would have supplied connecting links if only by super-imposing a coherent outline of things and events external to the music on the actual musical outline itself. <sup>(1)</sup>

It may be claimed <sup>(2)</sup> that interest in the associations evoked by music, particularly where they may be considered legitimate, as in programme music where the composer intends the listener to rely on them to augment his musical experience, increases the value of the aesthetic interest in the total experience. Interest and enjoyment in the associations for

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(1) I had a similar experience on hearing the record "The Awakening of Helen" from Strauss's "The Egyptian Helen".- No doubt during the performance of this scene interest would be centred on the stage, so that certain parts of the music would sink to the level of an accompaniment to the dramatic action.

(2) See Ernest Newman, Musical Studies; Essay on "Programme Music", P.161.

their own sake, as well as in their musical inter-relations, may add to the fullness of the experience. But it is doubtful whether it adds to the purely musical value of the experience. In most cases, as has already been indicated, it has the reverse effect - it detracts from the value of the experience as a musical experience. It may, however, be argued, that the two developing interests in the two bases of the music and the programme could be fused into a single interest. This leads to the question - whether two aesthetic interests can be successfully synthesised. Is it possible to fuse into one harmony of beauty two experiences of beauty different in kind? Unless perfect fusion is possible the quality of the aesthetic experience would depend on which ever source of interest occupied the forefront of attention. Perfect fusion would depend (as I have suggested in the case of such music as Bach's B Minor Mass) on compromise. Compromise is possible if the bases of the aesthetic interests were not too remote, as in simple words and tunes which are so familiar that they do seem to fit and blend as one. <sup>(1)</sup> But in most cases such fusion is only very imperfectly attained. Usually attention to the dual aesthetic object does not develop, but breaks down into fluctuations from one source of interest to the other parallel source of interest. <sup>(2)</sup>

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(1) Thus it is possible to enjoy aesthetically the alliance of music and dancing, music and poetry, and even music and colour-music (cf. one of Scriabin's last works);

Footnote continued:

because dancing, poetry and colour-music all possess the vital characteristic of music - motion. Poetry, which is also expressed through the same mediums - sound and rhythmic form - as music, suggests a very close connection with music. This probably explains the powerful effect of much great music which is allied to words.

On the other hand, the combinations of music and sculpture, or music and the representative art of painting, do not seem to be so satisfactory, probably owing to the fact that these two arts are essentially static.

- (2) The writer has often tried to enjoy aesthetically both the words and the music of a song. Where both are very familiar, this is possible - but at a first hearing the attempt is never successful. If I look at the written words which the singer is singing, I don't follow the music. If I listen to the singer, I almost invariably miss the significance of the words, unless I force myself to listen for them, when again I lose the thread of the song.

Moreover, there is often not merely fluctuations of attention, but actual conflict (for example when the programme cannot be fitted into the music at all.) Such warring of interests tends to neutralise rather than to enrich the aesthetic enjoyment of the two objects. It is because the two courses of interest are different in quality that the listener cannot reconcile them, and so he gets aesthetic enjoyment from neither. A fusion of purely musical interests is of course possible, and often is the source of the highest form of musical aesthetic pleasure, as in the experience of any contrapuntal music. A good example is the strict canon which forms the Minuet of Haydn's Quartet in D Minor, Opus 76, No. 2.

In considering the question of "associative listening" we must never forget that music is untranslatable into any other terms than itself. Music is expressed by means of sound-symbols which have no other significance than a musical one. Their association with the natural world of sound and movement is only superficial, and, as I shall show later, imparts only an indefinite extra-musical associative value to music.<sup>(1)</sup> Music is a system of tonal and rhythmic relationships which can be conceived or followed intellectually, as we conceive or follow and grasp, a course of thought, or a mathematical problem; with the essential difference, of course, that here the basic related

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(1) See Chapters IX and X.

entities are not formal, conceptual entities, or expressionless symbols, but sensuous apprehensible qualities. Any such intellectual following of music (on which pure musical enjoyment depends) could have no element in common with the grasp of a series of extra-musical concepts, or of external images and events.

Writing of the musically cultured person who is listening to music at the highest level; Professor Myers says, "So long as the former attending merely to music qua music, can maintain his high level of aesthetic enjoyment (I infer he means "music-ally aesthetic enjoyment") associations are debarred from consciousness."<sup>(1)</sup> . . . And again . . . " In order that the associations may be enjoyed for their beauty, either the music must be wholly neglected, and the story, the wealth of colour, enjoyed as if it were a work of art - which is seldom possible - or the associations must blend or fuse in their general meaning (on which their beauty depends) with that of the music. Otherwise they can have no aesthetic value, but are merely affectively toned with pleasure or displeasure, or at most excite in the listener feelings of joy or distress according to their cognitive or emotional content."<sup>(2)</sup>

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(1) C. S. Myers, "Individual Differences in Listening to Music"; in The Effects of Music, edited by Max Schoen, P.23.

(2) Ibid, P.23.

But in the first case, taking this quotation statement by statement, the aesthetic enjoyment depending on the wealth of images etc. is not a musical aesthetic enjoyment. Therefore this is beside the point in an analysis of musical experience. Secondly, to repeat what I have already emphasised, it is rare for the associations to fuse in their general meaning with that of the music. There may occur moments of fusion, but prolonged fusion does not occur throughout the whole developing course of the purely musical experience. Moreover, the meaning of music is peculiar to itself; the only kind of fusion possible throughout the whole duration of the music would be a fusion of the feeling-tone engendered by the associations with the feeling-tone engendered by the music. This does not mean that the associative trend is fused with the musical trend; - only that the general emotional attitude of the listener's mind would be coloured by the presence of a certain feeling-tone aroused by the associations. The associative trend need not necessarily go on at the same time with the musical trend.

In support of his argument Professor Myers quotes the answer of one subject who makes the distinction, framed by Professor Myers, between unfused associations, and associations of aesthetic value which fuse with the music. "I object to these suggestions, for I find that the music . . . is not listened to for itself . . . But when the suggestions and the music actually blend, there is the completest and greatest

enjoyment, greater than when there is music alone.' " There may be greater enjoyment, even granting the possibility of sustained fusion, but there is not greater musical aesthetic enjoyment. Moreover, how does Professor Myers reconcile the statement "I object to these suggestions because the music is not listened to for itself," with the fact that the subject allows the intrusion of suggestions so long as they absolutely blend with the music? If the suggestions blend absolutely, then he can hardly be aware of them at all, otherwise his attention is not given wholly to the music; they must also take on a purely musical significance to be inseparable from musical meaning, which is significant of itself alone. In this case how can the associations increase the aesthetic enjoyment? As Professor Myers himself points out, if the subject listens to the music for the sake of the music itself, he tends to inhibit these suggestions - how then can there be fusion of music and suggestions? Further, and this point is passed over by Professor Myers, where all the interest is in the "meaning" of the music - when we are attending most actively to the music - there are no, or very few, suggestions simply because there is no room for them! Few individuals can truthfully assert, even those most musically cultured and practised listeners, that they have followed and grasped the point of every detail, every progression, each subtle distinction in harmony or polyphony, each scarcely perceptible change in tone-colour or dynamic force; or have

singled out and followed in its relation to the whole each line of counterpoint - all of which make up the musical whole. And to be interested in the music, to experience the music aesthetically, is to follow and enjoy, if only incompletely and without perfect comprehension, all these innumerable complex relationships and to fuse them into a single coherent musical whole. The most active attention to the music must tend to inhibit any other course of attending to a secondary object, such as following associations, simply because the musical object is so complex.

Therefore we must conclude that the associative attitude, or "programme" listening, in which may be included all such experiences as dramatising the music, translating it into emotional or philosophical terms, or into terms of other symbols or images, such as colours, scents, muscular movements as in dancing, etc., does not imply sustained and active attention to the music as a single aesthetic object, and therefore degrades the meaning of complete aesthetic absorption. This attitude comprises an intermittent following of the music, for either associative trends evoked and sustained by the music are followed and enjoyed for themselves, and then the music is only attended to at intervals; or the listener attempts to blend the associative trends suggested by the music, or by its title or programme into some sort of fleeting or imperfect fusion with the music.

The only type of associative attitude which will not impair aesthetic absorption is that which occurs when a certain mood or feeling-tone, engendered by the fore-knowledge of a programme or title, or suggested by obvious imitation, colours the listener's attitude. This mood or feeling-tone may blend with the feeling-tone aroused by the following of the music as music. But very often, though the idea of a programme may be present at the beginning, as the origin of this mood, etc. it soon disappears from consciousness when attention to the music becomes more and more sustained, and where interest in the music for its own sake becomes more absorbing.

There is another response to music which cannot be classed under the "associative" attitude, but which is connected with the question of Musical Attention. I refer to the immediate "physiological" response to the physical qualities of music.<sup>(1)</sup> Here the subject does not follow the relationships of pitch and rhythm, except superficially. He is concerned with the direct effect of volume, timbre, texture and pace. He does, in a sense, attend only to the music, but he attends in a special way, for there is no developing or expanding interest. Professor Myers describes a somewhat similar attitude in his analysis of the "intra-subjective attitude."<sup>(2)</sup>

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(1) See Chapter XI.

(2) C. S. Myers, "Individual Differences in Listening to Music"; in The Effects of Music, ed. by Max Schoen, pp. 30 & 31

Here the response is mainly physiological and this attitude corresponds with those cases where Wundt describes the attention as being "passive" rather than "active".

Any distinction between "active" and "passive" attention implies a difference of quality not merely in degree. Active attention is mainly distinguishable from passive attention as being consciously selective. This distinction applies very well to the present argument as serving to discriminate between the attitude which consists in following and being acutely aware of, musical relationships, and that in which the music is heard rather as a physical force which impresses itself on the unresisting but not actively receptive subject. <sup>(1)</sup>

In this immediate response to music, which Dr. Vernon Lee has discussed very fully under the heading of the "Cecilian" and the "Dionysian" types of listeners, <sup>(2)</sup> the subject is almost forcibly impressed by the violence and pace of the music.

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(1) This kind of passive attention must not be confused with the state of aesthetic absorption which I described in the introductory chapter. In the latter state the active following of relationships passes into the contemplative attitude; this is, in a sense, passive, inasmuch as the effort of grasping the relationships is lessened, or is felt as subsidiary to interest in the music as an aesthetic whole, and so passes from consciousness. The awareness of the relationships throughout the aesthetic experience still remains very definite; though the relationships need not be explicitly formulated. Passive attention in the sense in which I now use it means a bare acceptance of certain physical qualities as distinct from the grasp of these as related.

(2) Vernon Lee, Music and Its Lovers, Pp.123, 124.

The dynamic qualities of music are experienced and enjoyed because of their elemental appeal. The sense cannot escape them. This response resembles aesthetic absorption in so far as the subject may identify himself with sound and rhythm as moving and impressive elements, but he does not take into account their formal relationships which in aesthetic absorption are felt as fundamental to the enjoyment of music as a work of art. Each sound, regarded as a single sense-object, may also be experienced as intrinsically beautiful, and so may have a value of its own, but this will then be an experience of beauty which is altogether different from that which is derived from the grasp of these as constituent elements and in their formal significance as music. Here the subject surrenders himself to sensuous enjoyment of sound. In aesthetic listening, though a certain sensuous enjoyment of these physical effects must colour the whole experience with its particular feeling-tone, interest in the formal relationships, and in their recurrence and contrast, as well as interest in their expression and clear exposition by means of their dynamic treatment, becomes so full that it must subordinate to an extreme degree the enjoyment of the physical effects for themselves alone. It is difficult to attempt to separate the enjoyment of music as an artistic unity from our enjoyment of the elements used to embody the relationships which make up this unity. But in aesthetic listening of the purest type, the

beauty of the physical qualities of the music is taken for granted and pushed to a back place. If beauty is absent, however, it will be missed; or if these elements are not intrinsically beautiful their poverty in this direction may lessen the aesthetic satisfaction and enjoyment. But the cultured listener does not over-indulge himself in the pleasure which derives from the experience of these sensorial effects. He may even object to their prominence, when they hinder his attending to the music. Beautiful tone is taken for granted, in the performance of a violin concerto, for example, but overmuch vibrato, or portamento, or too much emphasis on similar sensuous effects, are artistically objectionable.

Enjoyment of the dynamic effects of music and the other sensuous aspects of sound etc. compensates many an uncultured listener for the barrenness of his aesthetic experience. Such enjoyment is also without the effort and strain which, except in very accomplished musicians, accompany aesthetic listening. Moreover, aesthetic listening may not always bring aesthetic enjoyment, though there must always be present the satisfaction which attends successful effort. True aesthetic enjoyment is often fluctuating, since the aesthetic experience when fully realised depends not only on the degree to which the subject is successful in following the music, but also on the degree to which the music is found worthy of being followed.

For though aesthetic listening is not judging, in all such aesthetic experience there is judgment implied, even if it occurs only as an unconscious (or implicit) reference to some conventional standard of taste, or to the listener's own background of musical experience. The cultured listener unconsciously sums up the music as he listens, and makes a running comparison with his background of musical knowledge. When the music falls short of what is aesthetically satisfying, (what he finds beautiful), it is either because he is incapable of perceiving its coherence, or because the music itself lacks the unifying coherence which is necessary to its adequate realisation and aesthetic enjoyment. This may occur because of defects in its actual presentation - ugly tone, or inferior interpretation - or because of the poverty, commonplace character, or in-artistic arrangement of the musical ideas themselves.

Aesthetic enjoyment of music then, occurs far less often than enjoyment of the sensuous qualities of music. Note that this latter enjoyment is almost equally keen whatever the kind of music. Large masses of sound, of contrasted orchestral timbres, are often the most effective means of inducing it, though the simpler types of melody and harmony may make a similar appeal. Such effects, however, may weary further the hearer when he is already tired; for often the violence of the physical impact seems to have the force of an actual blow.

What distinguishes absorption in mere physical effects most strongly from aesthetic absorption is the fact that the interest and satisfaction which the subject feels are not progressive. The hearer may follow the advance of sound, but only in a superficial way; that is, he feels that the sound flows on at a certain pace, and that there are changes in intensity, and so on. But it is a barely differentiated following. He has practically no awareness of a sound-pattern extended through a duration of time. His experience of the rhythmic element in music, for example, is an experience of a moving progression of single stimuli, unrelated - or related in the most obvious way. He does not recognise their connection with a pattern: each unit is experienced as separate; or heard, at the most, in proximity to its neighbors, without the significance of its artistic relationship being grasped. The pace of the music is felt as fast or slow or moderate, but the constituent elements of form, the rise and fall of phrase, the recurrence and contrast of themes, and so on, are not differentiated or followed. The qualities which this individual enjoys are music's dynamic effects; on the side of tone, intensity or volume and resonance; on the side of rhythm, pace and recurrent accent or stress. There is a bare awareness that these qualities are changing, increasing, or diminishing; but how, or to what extent, is not taken into account. Such an experience may not even involve the actual perception of beauty

at all. The subject is often content to enjoy the sounds etc. in the way described without perceiving them as beautiful in themselves. He is merely conscious of the agreeable or exciting feeling-tone aroused by them.

This attitude is thus mainly a physiological or "bodily" response to the music. By "bodily" I include effects on the circulation, the breathing, the blood-pressure, kinaesthetic activity, and so on.<sup>(1)</sup> There may be acceleration or retardation of the heart, quickened or slow and heavy breathing (this latter is of very common occurrence, even in aesthetic listening), and a general heightening of nervous tension. Such features often have external expression in involuntary movements, like jiggling the foot or nodding the head, or waving a fan in time to the music. We may see the full expression of the activity which accompanies this response in the spontaneous dancing of children, and of other naïve and unsophisticated beings. (such as savages or surviving types of primitive races) who are not inhibited by self-consciousness. This spontaneous expression of enjoyment of the physiological effects of music is controlled in the higher types; while listeners who strive towards aesthetic listening tend to repress such expressions by substituting higher centres of enjoyment.

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(1) Mr. Max Schoen has summed up the writings on this subject in a single chapter, The Beautiful in Music. Chap.VI.

This physiological response, it follows, is mainly a pre-occupation with feeling-tone - a pre-occupation with the functioning of what Dr. Vernon Lee calls the protopathic side of the brain. It is a finding of sensory stimuli pleasant or disagreeable in themselves, without discriminating or systematising them, i.e. without taking into account the satisfaction which epicritic functioning affords. <sup>(1)</sup> The variations of feeling-tone are enjoyed for their own sake, and are not sublimated into a higher aesthetic experience. This enjoyment of feeling-tone is not accompanied by a growing perception of the increasing complexity of the musical relationships, as in aesthetic listening. The latter is a grasp, which while increasing in complexity (in its extent, and in the variety of the constituent parts which it embraces), is yet growing steadily clearer and more organised; becoming single and unified as the grasps of the parts, multiple and in themselves complex, blends into the grasp of the whole.

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(1) cf. Vernon Lee, Music and Its Lovers, P.131. Dr. Lee explains protopathic activity (following the lead of Sir Henry Head), as the "primordial-affective" activity which includes the emotional and practical responses of conscious mind to such impressions from the outer world as fall under the alternative heading pleasant and complaisant, and which set up movements expressive of attraction or repulsion; and this no matter through which of the senses these impressions are conveyed, and with no interest in these impressions beyond the emotional and practical reactions they have set up." Protopathic functioning has been localised in the thalamic portions of the brain; epicritic functioning is localised in the cortical (or critical) portions of the brain. The latter is a "secondary function discriminating and discriminatingly registering the impressions from the outer world conveyed by our senses." The two functions are rival yet co-operating activities.

Attention is co-existent with developing and expanding interest. Interest also becomes more unified as it develops. In the "bodily response" there is no expansion of the interest. Interest in the sound-element remains stationary, and active attention is at a minimum. Interest may also decrease, as sound effects become wearisome.

This leads me to the question which I have already partly answered when discussing programme-listening. Is the interest in aesthetic listening always and solely an interest in the musical system of relationships - in the "musicality" of music? I have already suggested in my observations on associative listening that there cannot be a perfect fusion of progressive interests where the bases of the interest are incompatible. But can there be a fusion of interests separately aroused by a single object? To put the case more explicitly - Can there be fusion of the interest in the musical system, and interest in sound enjoyed for the sake of its intrinsic beauty, or enjoyed simply for the sake of the pleasurable or exciting feeling-tone it arouses? Interest and enjoyment are here almost synonymous terms. Interest in sound for its own sake is part of that bodily response to music which is associated with protopathic functioning.

Enjoyment as experienced with regard to the successive feeling-states aroused by the sensory material of music is bound up with this interest. Both this interest and this

enjoyment, as we have seen, can and do exist apart from interest in the music as music - i.e. as a work of art. But can they also exist simultaneously with this interest? Interest in sound for its own sake, whether this implies recognition of its intrinsic beauty or not), does exist in aesthetic listening, inasmuch as the subject may be aware of the pure qualities of sound without giving them a foremost place in attention. Unless music is to be regarded as a problem of mathematical relationships, symbolised in tones,<sup>(1)</sup> we should expect the experience of listening to music to include awareness of the intrinsic value of sound, of different wavelengths, harmonics, etc., and awareness of the feeling-tone aroused by this absolute material, in addition to the satisfaction and interest which attend the successful discrimination and synthesising of the musical relationships. The presence of agreeable or disagreeable feeling-tone, as I have before pointed out, colours the whole experience. The finding of the relationships interesting and satisfying or the reverse in music must always be qualified according as the primary elements of sound and time, through which they are conveyed, are of agreeable or exciting feeling-tone. Only if the listener finds that the formal beauty of the work of art (the unity of these relation-

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(1) Following a work of music from the score alone is an experience which approaches the conceptual experience involved in grasping a problem in pure mathematics.

Footnote continued:

It is unsatisfactory as a musical experience because though the sensory qualities of sound in its different aspects, intensity, resonance, duration and timbre, may be supplied by the imagination, there is absent the very prominent reality of the actual physical impact of the notes on the ear. Moreover, the listener is less likely to supply the infinite variations of touch, phrasing, rubato, etc., which make the actual performance of a work of music a living expression of beauty. The comparison of music with mathematics reminds us again that the former is also a system of relationships. But in music the entities which have these relationships are not merely conceptual values, as in mathematics, but sense-objects - the results of effective stimuli impinging on the human organism. The fact that these are not pictorial or representative, as in the other arts, does not give them conceptual value, until realised in a scheme established by the composer.

ships in all their aspects, dynamic as well as formal) is secondary in importance to the sensuousness of these primary elements (which may be exaggerated to make up for this defect) is his enjoyment of the music as an art-object impaired. Though sensuously beautiful timbre may set off musically beautiful relationships (beautiful in the sense of being "inevitable" or "artistically right", because of their position in the context), the presence of this quality will not make up for inferior or inadequate musical development. For in aesthetic listening it is not the predominance of pleasurable feeling-tone which gives the experience its value. Many works which we enjoy as beautiful (i.e. which afford occasion for satisfying aesthetic experience) may be made up of sensory material which is in itself intrinsically disagreeable. Passages of harsh, unresolved discords, or fundamentally disagreeable intervals may afford, in their context as part of a developing musical whole, and also in contrast with more obvious and agreeable harmonies, the greatest possible aesthetic satisfaction.

We may conclude then, that certain features of the physiological response are involved in aesthetic absorption, but only as controlled by, or subsidiary to, a higher field of aesthetic interest. A subject may be conscious of the agreeable feeling-tone consequent on the perception of sounds as beautiful in themselves; this interest, however, must be submerged as

interest in the sounds as related becomes more complex. But the feeling-tone may continue to colour the mood in which the subject listens. There may also be present a heightened sense of bodily activity, both functional and kinaesthetic, though the voluntary expressions of this latter activity are controlled or repressed. These may be present throughout the whole course of the musical experience without the subject being aware of them.

Where interest in the sounds for themselves, or enjoyment in the feeling-states engendered by their absolute qualities, takes the place of interest in the relationships and the satisfaction occasioned by these and the successful grasp of these relationships (including satisfaction in the sensory effects as conveying the artistic whole), there can be no true musical aesthetic experience. The subject may have an experience of beauty - the static beauty of a natural object - but this is different in kind from the progressive and developing experience of the beauty of a musical work of art which he has in aesthetic experience.

I have referred several times to the experience of the critical or objective listener as most nearly approaching the level of true aesthetic listening. We now need to consider, with special reference to the question of musical attention, in what way does the attitude of critical listening differ from the attitude of aesthetic absorption?

The distinguishing feature of objective listening is the process by which the critical listener follows the musical relationships attending to them not purely because of his interest in them for themselves, but because he has an extra-aesthetic aim in view. He attends to them because he desires either to extend his technical knowledge, or to make an explicit judgment on the music. He does not desire an immediate subjective experience of beauty only, an experience satisfying in itself, as in the case of the state of aesthetic absorption. In the first place he wishes to enlarge his musical background by thinking the relationships explicitly as he goes along, or later, in retrospect. This means that his active attention never changes to passive in the sense I have indicated in my description of the attitude of aesthetic absorption. He consciously directs his attention to the music and objectifies it, not merely to enjoy it, but to make clearer his thought of it. He may also objectify it, not thus, in order to enlarge his musical background, but in order to judge the music with reference to that background.

I have now reached the last characteristic of musical attention in aesthetic listening - the question of musical education and the fundamental dependence of musical interest and enjoyment on the listener's musical background. In aesthetic absorption there must always be present reference (not necessarily explicit, as in critical listening) to what I may

describe as an intellectual base. Attention to the music, the growth of musical interest, and the satisfaction accompanying it, depend mainly on the presence of this musical background. Attention will be undivided, and interest will be correspondingly full and progressive according as the subject can make the music fit into his musical background. The success with which he does this depends on his natural capacity, and the degree to which this is developed, through the organisation of his past musical experience. It is often by first listening critically that we arrive at listening aesthetically. In that kind of listening which culminates in complete musical absorption we must be able to take the relationships for granted. Usually we can only do this if at some time in the past we have consciously thought them, made them explicit.

There is, of course, the reservation that sometimes they are so simple that they can be intuitively grasped. For instance, the relationship of the unison and that of the octave are self-evident. The fact that primitive races sing spontaneously in perfect fifths, a practice which may be occasionally noted in the unconstrained group-singing of children, seems to indicate that the interval of the fifth is also one which is immediately apprehended as forming a natural or fundamental relationship. In the case of the more complex relationships it is difficult to determine how far a seemingly

spontaneous recognition and understanding of these are dependent on the familiarity gained during the early years of childhood; and how far on an inherited aptitude.

In aesthetic listening when we follow a complex musical progression we do not think the developing relationships explicitly. There is no need to give a name to each separate interval, for example - to note the relation of each note with its neighbor, or to the key, or to the tonality in which the music is written. In following a musical phrase we do not observe by how much this note is louder than that, etc., and that the climax of the phrase is brought out with a certain dynamic effect. These things are realised implicitly, and their significance is understood in the light of past musical experience. The proof of our knowing them without having to think them is that we can, firstly, fit them into that part of the musical system which we have already grasped, and secondly that we are led from them to expect certain developments, more or less definitely conceived, to follow after them. It is necessary to add the proviso "more or less," for we are not always surprised if a development follows different from the one we might logically expect, so long as it, or a similar development, has occurred at some time in our past musical experience. But if it is a new development and we cannot instantly fit it in the context on the pattern of other developments with which we are familiar, then we may have to

think it, even to criticise or to judge it, before including it in the musical scheme. We have to make it explicit. This is the reason why so many students and amateurs tend to listen objectively, when hearing for the first time a work written in an unfamiliar idiom. But in aesthetic absorption it is because the subject does, within broad limits, foretell what will happen from moment to moment, that he gets that intimate feeling of possession, of creation, which I have described in the Introduction. The effect is also the same if the development surprises him by its unusualness, as long as he recognises it and approves it as "artistically inevitable" when he does hear it. An extensive and systematised background of musical experience is necessary if the musical development is to be anticipated by the listener. He thus approximates to the composer; he who "appreciates" becomes, in a sense, he who "creates." Thus the highest type of aesthetic listening is truly conceptual. The listener, moreover, feels that the music is his own, that he is the force placing note after note, varying the rhythm, and contrasting timbre. <sup>(1)</sup> This feeling of possession which almost amounts to a sense of creation is particularly prominent when we listen to music which is familiar, and the development of which we can therefore confidently predict. We may take the case of the listener who is following a simple melody without harmonic accompaniment. <sup>(2)</sup> The musically cultured listener in

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(1) The feeling of personal ownership or creation is particularly strong in those who interpret music. Though the

## Footnote continued:

interpreter cannot radically alter the scheme of time-values he can nevertheless slightly vary the time-relationships and so imprint on them the stamp of his personality by the use of rubato. Pitch-variations must be rendered accurately (though in the case of stringed instruments there may be all kinds of subtle nuances of intonation. See Lillian Littlehale's study, Pablo Casals, where the author discusses the principles of "Expressive Intonation" as conceived by the great 'cellist. P. 192 ff.) There are, however, infinite possibilities with regards to variation of timbre and intensity, though these must always be subordinated to the exposition of the musical idea.

Though skill in interpretation is not an essential of the equipment of the aesthetic listener, it is nevertheless desirable to be able to interpret, even if inadequately. In no other way does the significance of musical relationships strike home so directly.

- (2) A single line of melody will always strike the listener with more powerful directness than a melody enriched with an harmonic background. The added harmonies sometimes cause a certain conflict of interests, and may distract the attention from the melody. A single tune affects the listener powerfully because of the direct effect of the lineal relationships. Miss Wilson (in Sound and Meaning in English Poetry, P.26,) thinks that such tunes have therefore a greater emotional effect than any other kind of music. Perhaps this writer does not distinguish clearly aesthetic emotion due to "musical significance" from the "physiological pleasure" which is often aroused by such simple melodies. Moreover, in many cases, the emotional meaning of folk-melodies, for example, is indissolubly associated with the words. It is not so clear that a beautiful theme taken from a work of absolute music would possess the same external emotional significance which a folk-tune, steeped in the associations of generations, would have.

the first place hears the melody as a melody, - i.e., as a pattern, and not merely as a sequence of sounds. It is not merely the occasion for a series of unrelated sense-impressions (compare the pre-occupation with thalamic functioning which is characteristic of the physiological attitude) which convey nothing of their intrinsic musical connectedness. The listener grasps the melody as a coherent sound-pattern extending through time. He perceives it as a system of tonal and temporal (rhythmic) relationships, defined more clearly by their dynamism, and possessing intrinsically pleasant or beautiful sensuous appeal because of the varying timbre.

What the subject who listens to an unfamiliar melody really experiences may be expressed diagrammatically in this manner:-  
 A, aB, abC, abcD. etc. A, B and C stand not merely for the pitch-positions, but as sense objects possessing at least five different attributes - pitch, duration, relative emphasis or accent, intensity, and timbre. When the subject hears the second element B, he does not hear it as an isolated entity but as tinged with the memory of A. He hears a B. But his experience is also a B?, where "?" signifies "What next?". This expectation as to what is to follow is only partially satisfied by "C"; for in the very act of satisfaction it is stimulated further, until final satisfaction is reached when the last note dies away - A?, aB!?, abC!? . . . . . abc....yZ!

Thus listening to a melody as a coherent system of sound-relationships involves active following of the melody. In the experience there is present memory-activity, and alternating degrees of expectation and partially satisfied expectation until the final goal is reached, when satisfaction is complete. There is also a developing interest in the relationships according as they satisfy or fail to satisfy the listener as being artistically beautiful - i.e., as being coherent, and forming a musical unity which is impressive or significant.

When a familiar melody is heard, and recognised, the recognition of the tune colours the whole experience, giving it an additional personal significance. Taking T to represent the whole melody, the experience might be represented thus:-  
 A; aB?; abc! ? ; abc (or T)!! D? etc. (The recognition of the melody, as I have shown here, comes after the melody has started.) Expectation is still present throughout the whole experience, but it is far more definite than in the first case. Throughout attention is actively directed towards the following of the music, and interest mounts higher and higher until the end is reached.

The experience of listening to the first movement of Beethoven's Fifth Symphony in C Minor is similar to this. If the listener knows what he is going to hear, he waits for the statement of the opening theme. His initial attitude depends,

as we have seen, partly on his mood, and, more generally, on the type of listener to which he belongs - associative, emotional, critical, or aesthetic. In most cases he is certain to follow the relationships to some extent. The success with which he becomes musically absorbed will depend on, first, his musical knowledge, and capacity, and the extent to which he can use that knowledge and capacity to grasp the music and fit it into his background, in order to be able to understand and enjoy the present experience; and, secondly, on the extent to which the music satisfies his demand that it should be artistically beautiful.

In every attitude of musical listening, close and undivided attention marks the experience. In aesthetic and in critical listening attention is coincident with a developing interest which expands and becomes at once more definite and more unified as musical relationships are followed and systematised. Attention is coincident with developing interest, and interest with developing thought. In developing musical attention each successive musical idea (or internally unified group of relationships) is followed to its musically logical conclusion. It is followed and grasped as a part of an extending and developing musical system, or formal pattern which is the musical work of art. Absorption in the music is reached only when attention is fullest yet least undivided. As the system of musical thought

becomes more and more complex interest becomes correspondingly complex. At the same time interest becomes more unified. Sustained attention in the experience of musical listening cannot include attention or interest in any object external to the music. This applies particularly with regard to associative and to emotional (in the sense of "physiological") listening; and also, with a reservation; to critical listening. In critical listening, however, there is thought of a purpose underlying the pure experience of listening. Here music is listened to, not simply for the sake of the experience itself, enjoyment of the beauty of the music, but in order to improve the ability to listen, or in order to judge or criticise. Attention to the music, as it implies full or growing interest in the music, tends to inhibit all other interests. The extent to which attention to the music can be sustained will depend on the musical aptitude of the listener - his receptivity - and lastly on his background of musical experience.

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CHAPTER II.

MUSICAL EXPERIENCE AT THE SENSORY LEVEL.

## CHAPTER II.

### MUSICAL EXPERIENCE AT THE SENSORY LEVEL.

The most thorough-paced listener must begin at the sensory level before he can reach the highest stage of musical appreciation - aesthetic absorption - which was described in the Introduction; though his progress from level to level may be quicker or slower according to his aptitudes, and we shall see as we go along. I shall therefore attempt to describe the course of musical experience, first in so far as music is heard at the sensory level, then as it is grasped and followed at the perceptual level, and finally where it is understood, and imaginatively conceived or re-conceived, when musical experience passes into the highest level, the conceptual. We shall see that "perception is developed in the interest of sensory problems, and conception or thinking in the interest of perceptual problems."<sup>(1)</sup> And we shall also see how the interest at the higher levels is, in musical experience, an intrinsic interest purely. Throughout this progressive analysis of the experience of listening to music, I mean to emphasise (using certain musical examples in illustration) how listening at the conceptual level - aesthetic absorption - depends on a growing intellectual grasp of the music as music. This intellectual grasp (which is closely connected with an intrinsic interest in the

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(1) W. Mitchell, Structure and Growth of the Mind, P.391.

music), and the satisfaction which attends its successful play, are two of the dominating factors in aesthetic listening. Intellectual grasp is therefore accompanied by affective and conative elements, as will be seen in the following analysis. The first section deals mainly with the intellectual (or cognitive) and conative aspects of musical listening. Since music cannot be wholly excluded from the realm of the representative in art - in many cases it makes a compromise between representation and absolute form - both because of the intrinsic nature of sound, and because of the associations which have crept into music during its artistic development, I have found it necessary to include three chapters on the associative value of music. These form section two. In the third section I shall discuss the affective element in listening, giving special prominence to my theory of an aesthetic emotion sustaining and informing this intellectual grasp of the music, on which it mainly depends. The chapter on the dynamic elements of music in Section I must be linked up with the analysis of the course of following musical relationships in pitch and time; from which elements the dynamic aspect can hardly be separated. The perception of pitch and rhythmic relationships is vital to music; but just as vital is an appreciation of the formal aesthetic value of the dynamic elements - intensity, timbre and texture. As I have shown in Chapter I, the listener must beware, however, of giving to these physiologic-

ally compelling qualities pride of place over those elements of pitch-relationship and rhythm which are bound up with the formal aspect of music as a work of art. Organised and heard in subordination to, or rather in illustration of, these formal elements, the "powers of sound" form a valuable and impressive part of all musical experience. This any listener will admit, no matter how accustomed he is to following music in score, who has listened to the same work silently in score, following it imaginatively, and also in reality at an actual performance. In the latter experience he is keenly conscious of all the impressiveness of balanced and contrasted sound. I only need stress again the danger of allowing interest in the sounds as sounds to overcome interest in the sounds because of their place in the music as a work of art.

The response to music at the sensory level forms the basis of all musical listening at higher levels. It is the response of children, of unmusical or untrained adults, and of primitive peoples possessing no, or only rudimentary, art forms of their own. It is also the response of animals to music.

This type of response in its relation to musical attention, and to the physiological effects of music, was mentioned in the previous chapter. It is necessary for the purposes of this analysis to amplify what was formulated there only in part. We saw that it is the reaction to the physical properties of tone and rhythm that is the outstanding feature in this type

of musical experience. It is thus mainly a physiological response. A pure form of this response may be seen in the effect of music on animals, where we are reasonably sure that no interpretation of the sounds or rhythms at a higher level creeps in.

It is well known that certain animals are peculiarly affected by particular kinds of sounds. Gosling records some interesting experiments made with various instruments on the animals at Regent's Park. <sup>(1)</sup> It was found with regard to violin-music that "all the animals tested, except cobras (snakes do not possess ears - they only feel vibrations sympathetically through the body) and wolves, manifested pleasurable curiosity while listening to soft, sad music, and a violent dislike to loud, harsh and discordant sounds. They seemed to prefer the minor to the major modes of all musical keys - bears and ibexes especially so - although the minor key appeared uniformly fatal to lupine peace of mind and equanimity." The writer possessed a cat who was sent into a state of trembling excitement and fear by high, shrill notes heard on the gramophone, remaining completely unmoved by notes of medium pitch and full timbre. A dog in the same house-hold howled in unison (or rather with an approximation to the same pitch) when he heard a woman's voice singing, or high passages played on the piano or gramophone. Curiously enough when, through constantly hearing the gramophone or piano played, he learnt to listen in silence to

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(1) H. F. Gosling, Music and its Aspects, P. 53.

music written in the classical tradition, passages illustrating the chord-combinations used by modern composers raised yelps of protesting criticism.

Helmholtz writes that the high 'E'''' played on the violin has a particularly startling effect on dogs;<sup>(1)</sup> and Miss Katharine Wilson imagines that this same note is the pitch of the hysterical bark of certain terriers.<sup>(2)</sup> This susceptibility of animals to musical sounds of a particular pitch and intensity, usually high and shrill, has been explained by the fact that owing to a particular resonance property of the ear they are unduly affected by sounds of a certain timbre, and within a particular pitch range. The same effect of pain or displeasure owing to this resonance property of the ear has been observed with regard to humans when listening to notes within a certain range at the top end of the piano. The effect is even more disagreeable when notes in this pitch-region are played softly, for to the disagreeable affective-tone of extreme pitch is added the effort and strain of hearing notes played pianissimo.

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(1) Helmholtz, The Sensation of Tone, P. 169.

(2) Katharine Wilson, Sound and Meaning in English Poetry, P. 23.

Thus we see that it is the physical qualities of sounds which are the source of the feeling-tone which colours the response at this level. Sounds may be characterised as regards pitch, intensity, duration, and timbre; and the recognition of the fundamental pleasantness or unpleasantness of these qualities is part of this response.

Experiments as to the effects of varying degrees of pitch, intensity and duration of single musical notes on young children have been recorded by Otto Ortmann.<sup>(1)</sup> In those cases where the subject had received some musical training it was found difficult to obtain his reaction to the sounds as simple elements of intrinsic value. The results, however, conclusively pointed to a general decided preference for notes of medium pitch, duration and intensity. It was found that the effort involved in sustaining the attention to notes characterised by these qualities in an extreme degree, definitely coloured the experience with disagreeable feeling-tone.

The pleasure in, or dislike, of, timbre for its own sake may be illustrated by numerous examples. One subject on being questioned by me confessed that the warm tone of the violoncello invariably moved him to tears; irrespective of the kind of music played on it. On the other hand, the violoncello is

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(1) Otto Ortmann, "Types of Listeners"; in The Effects of Music, edited by Max Schoen, Pp. 43 to 45.

my own pet aversion whenever its sensuous tone is over-emphasised, particularly in the upper register. Unless this instrument is played with great artistry and restraint, it may become maudlin or vulgar. For example, when the air "Kol Nidrei" is played as a 'cello solo, it is just those notes and timbres which the music emphasises which seem to me most objectionable. The rich and voluptuous timbre of the 'cello usually makes it a popular instrument, however; though the more strident note of the violin is equally popular both with children and with adults. Untrained or unmusical subjects, especially, are often more easily moved by its keen and solvent timbre than by that of any other instrument.

Among the musically cultured, pleasure in timbre for its own sake occasionally takes the place of the higher aesthetic pleasure, which includes recognition of its value to illustrate and enhance form. This is shown by the popularity among musicians of certain singers who owe their reputation not so much to their artistry or musicianship as to the exquisite beauty of their voice. A highly cultured musician of my acquaintance, of pronounced intellectual tastes, confessed that he derived enormous pleasure from the vocal acrobatics of a certain famous coloratura soprano. If timbre is an absolute source of pleasure, however, it is also an absolute source of pain. We read, for example, how the child Mozart fainted on hearing a trumpet played in the next room; and how, at the

sound of music, the young Chopin would burst into tears. These reactions, however, reveal over-sensitiveness to volume of sound as well as to timbre; for it is not always possible to separate these two qualities. Berlioz is an example of the opposite extreme, obsessed by volume for its own sake. His music "abounds in the use of striking and multiple sound effects. He refers to Mozart's use of a solo trombone in the 'Tuba Mirum' of his 'Requiem': 'Poor Mozart, who is content with a single trombone when five hundred would have been hardly sufficient!'" To the musical listener, however, who is "endowed with delicately poised sensibility, volume is entirely a matter of proportion." (1)

Preoccupation with such features as these is experience at the sensory level. So, too, is the experience of certain unmusical people, who, when they declare their fondness for music, really mean that they enjoy the vague rush of great masses of sound through their ears. Possibly a great deal of Wagner's popular appeal for the general public can be explained in this way. It has been suggested, indeed, that it was just "those amateurs who were not obsessed by intellectual predispositions" who accepted Wagner without reserve in the first place; while "those who were presumed to know most about

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(1) M. D. Calvocoressi, Musical Criticism, P.45.

Berlioz also showed great discrimination in his use of tone-colours. He was the first to react to the tone-quality of drums, and not merely to their rhythm.

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music . . . . doubted that he was mainly a great musician."<sup>(1)</sup>  
This conflict of opinions is obviously due to the fact that the two types demanded different things from the music. The former type belongs to just that class I have been discussing, to whom the appeal of music is completely contained in the sensations to which its sound-material gives rise; and according to the power of music to affect them thus most strikingly, they base their judgment. Wagner's music, particularly in such magnificent sound-passages as the storm-effects in the "Overture to the Flying Dutchman," and in the march from "Tannhauser" where the richly blatant harmonies have been likened to the music of a glorified Salvation Army band, is rich in those blaring sound-effects which delight the sensory type of listener.

The response at the sensory level has to do, therefore, with the unsystematised and ungrouped sensory material. In regard to music, this response is limited to what is actually present in the auditory response itself. That is, it is restricted to a single tone, or to a chord heard as an unanalysed whole. The first is distinguished in itself as regards its pitch, intensity, duration and quality. "A simple tone is felt as definite the more it has been distinguished from

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(1) George Dyson, The New Music, P.20.

others by reason of the aspects it has in common with them, e.g. pitch, loudness, duration, or emotional quality (=timbre). This work of knowing an object is done at the sensory level without thought of aspects in the abstract. The sensory object that is made definite and complex by the separation of its aspects remains altogether an object of sense."<sup>(1)</sup> We must, moreover, remember that though the sensation of a musical tone is compounded out of the sensations of several simple tones, the analysis of this musical tone into its constituent fundamental and partial tones is not made at the sensory level. Moreover, when we assign such a compound tone to any determinate musical instrument it is not a process of sensation, but of perception.<sup>(2)</sup>

(1) W. Mitchell, Structure and Growth of the Mind, Pp.212, 213

(2) "Impressions on our senses, in so far as we become conscious of them only as conditions of our body, and, in particular, of our nervous apparatus, are called sensations; but in so far as we form from them a mental image of external objects they are termed perceptions. When we apprehend a certain sound as the tone of a violin, we have a perception; we conclude that a certain instrument exists which usually produces tones of that 'kind'."

(Helmholtz, The Sensation of Tone, P.94). Repeated productions "of the same sum of partial tones in our sensorium leads this sum to come to be regarded as the compound sign for the musical tone of the violin . . . . The oftener such a combination is heard, the more accustomed are we to apprehend it as a connected whole, and the more difficult to analyse it by direct observation." (Ibid. P.98).

At the sensory level the chord is heard as a single object of sensation in the same way as a musical tone, really a composite whole, is heard as a single sense-object. Tones and chords are responded to as individual or simple sensations. In music each successive stimulus is experienced as an independent unit, existing for and by itself. There is no co-ordinating of these simple units into higher units; that is, the character of each unit remains independent of its environment. It is not affected by the preceding stimulus, nor does it affect the succeeding unit. This absence of the formation of higher units is the distinguishing mark of musical experience at this level. But such a response - that is, the response to a chord out of its environment - is only theoretically possible as a purely sensory response to music. Any subject who has the slightest familiarity with music would find it almost impossible to listen to each of a succession of chords in harmony without the effect of one chord being qualified by its proximity to another. Even to an unmusical listener the effect of a concord after a passage of harsh chromatic harmony which he can neither follow nor understand, possesses a value which is due to its context, as well as to its intrinsic unity and repose.

The response to the absolute quality of consonance and dissonance is thus included in the experience of music at this level. Experiments as to the relative affective value of the various intervals within the octave have given the following

order of preference. The distribution is from pleasant feeling-tone towards disagreeable feeling-tone, thus:- major 3rds, octaves, minor 3rds, major 6ths, minor 6ths, augmented 4ths, perfect 4ths, perfect 5ths, minor 7ths, major 2nds, major 7ths, minor 2nds. (1)

It is precisely the preference for intervals in this order characterising the response of the uncultured which explains the popularity of such well-known tunes as the "Barcarolle", from "The Tales of Hoffmann.", the catchy airs of Verdi's early operas, and the numerous popular ballads of today. The over-emphasis on such obvious sources of pleasant or exciting feeling-tone gives a sentimentality to the music which is particularly palatable to the musically uncultured. The harmonic accompaniment of the popular tune "Two Eyes of Grey", to take one example, is made up of these thirds and sixths, which combined with the sickly progression of the melody gives an excellent illustration of the maudlin tune-fulness which depends among other things on the predominance of those intervals which have been found to be physiologically agreeable. But the progressive development from enjoyment of such popular airs to an appreciation of a better type of music is shown in the musical progress of almost every child who has the advantage of even slight musical training, or of becoming familiar with good music through concerts, gramophone or

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(1) Otto Ortmann, "Types of Listeners" in "The Effects of Music", edited by Max Schön, P.47.

wireless, etc. Such progress shows how the individual response changes, by training and experience, from the response at a low level to that at a higher level.

Even composers of the best calibre do not, of course refrain from making use of 3rds and 6ths; but in these cases they possess artistic or formal value which is additional to their value as being physiologically agreeable. The opening theme of the first movement of Brahms's clarinet quintet is a good example of the artistic use of a succession of 3rds and 6ths which are redeemed from stickiness by the grace and artistic fitness of their combination.

Allegro.

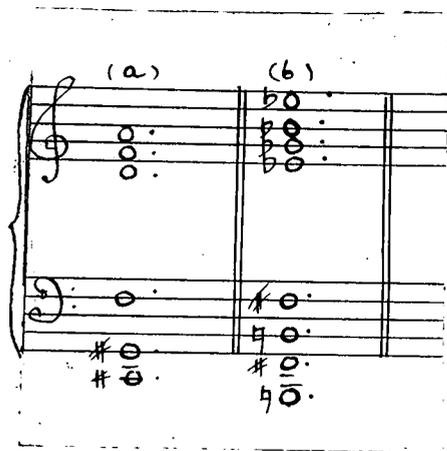
The image shows a handwritten musical score for two staves, labeled 'Vi.' and 'Vii.'. Both staves are in treble clef and have a key signature of one sharp (F#). The music consists of a series of intervals, primarily thirds and sixths, which are highlighted with boxes. The piece is marked 'Allegro' and ends with 'etc'.

This theme is heard as part of the whole movement, and therefore is not judged as a single entity. The perhaps excessive wistfulness of the theme is thus counter-balanced by the second theme which is more vigorous and rhythmically robust. Moreover, its musical effect is modified by the pace and rubato with which it is played. This theme could be sentimentalised if these intervals were dwelt upon too languorously and so overemphasised. Though works of a high musical standard may indeed include many such intervals, they do not rely on the predominance of these for their value as works of art. It

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would be difficult to find a piece of music which does not include 3rds and 6ths, unless we except some modernist examples. But in good music such intervals are mainly effective from their place in the musical context. Hearing them in their context means that they are no longer experienced at the sensory level. Their power of satisfying or pleasing thus depends on their forming part of a complex effect, instead of being in themselves a simple one.

But apart from their effect in the larger groupings which I shall discuss in a later chapter on listening at the perceptual level - apart then, from the question of environment which may make a chord, ugly in itself, beautiful as part of a progression - it must also be recognised that a chord, disagreeable in itself at a first hearing, may become neutral and even agreeable, after several hearings, though the experience still remains at the sensory level. This fact is important for it is partly (only partly, however) the explanation of the gradual widening of what we understand as "consonance" to include more and more extreme dissonant combinations as consonant. The only perfect natural consonance is the octave and the unison. But the intervals and chords which are felt to be satisfying in themselves have increased throughout the last few centuries until even such combinations as the following can be enjoyed as consonant in the broader sense if heard often enough.



Both (a) and (b) are examples of a combination of two tonalities, and as such they can be experienced as significant at a higher level than the sensory. Yet regarded merely as an unanalysed simple unit each of these chords is capable of arousing positively agreeable feeling-tone after several repetitions.

This growing tendency for dissonant combinations to be regarded as consonant is partly due to the weakening effect which persistent repetition of a stimulus has on the response to that stimulus. It may also be, as I have suggested on Pages 74 and 75, that the response to any chord-groupings can seldom be confined to the sensory level. We constantly respond to dissonant combinations as part of an imagined environment. This occurs when we resolve discords mentally by supplying the concords. Such a response is at a higher level than the purely sensory. (1) Nevertheless, the constant occurrence of certain dissonant combinations throughout the more

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(1) An example of how we resolve a discord consonantly in imagination may prove helpful. It will also be possible to proceed by means of this example to a more

## Footnote Continued.

detailed explanation than has been possible in the text, of the widening of what is termed "consonance" in a general sense, to include certain real dissonant effects, originally felt as dissonant, but now regarded as possessing a satisfying consonant meaning.

When we hear the final chord at the end of the first act of Debussy's "Pélléas et Mélisande", its resolution is understood and imaginatively supplied, as at (a).

The musical notation consists of two staves, treble and bass clef, with a key signature of three sharps (F#, C#, G#). The piece is in 3/4 time. The notation shows a melodic line in the treble clef and a harmonic line in the bass clef. The final chord is a complex, dissonant structure. The resolution is indicated by a dashed line and the letter 'r' above the notes, suggesting an imaginary or understood resolution. The notation includes dynamic markings like 'p' and 'p(r)'. The label '(a)' is in the top right corner.

With increasing familiarity the ear comes to dispense with supplying resolutions imaginatively, and ends in accepting such chords as final in themselves, as standing for a concord. Such a chord as the final one in the example is accepted "as a point of rest, as a combination of notes reduced to its simplest terms, and having no necessary implications. And this chord may then become, as it actually has in certain contemporary schools, invested with the finality, and incidentally with the monotony that adheres to any conventional formula." (George Dyson, The New Music, P. 64.).

When, however, chords like the above example are inwardly resolved in accordance with the accepted conventions of tonality etc. it is because their fundamental connections with the traditional roots have not been lost. They are heard at the conceptual level. But when they come to be experienced as simple or consonant in themselves, then the hearing of them is back at the sensory level as far as it is ever possible for such chords to lose entirely the impress of the mould which first formed them.

recent history of music has insensibly modified the feeling-tone aroused by these particular chords, although, as I have indicated, this change has also been helped by the effect of the context in which such chords occur. The magnitude of this change in feeling-tone may be clearly realised if we examine the gradual evolution of harmony from the sixteenth century up to the present day. At first the simplest dissonances were sufficient to give artistic contrast; but as music progressed, more and more complex dissonant effects were utilised to obtain the same degree of artistic relief to what has now become excessive consonance. The significance of the variation in dissonance between the first position of a major common chord and its first inversion, to give one example of a variation which was considered sufficient contrast in Palestrina's time, is lost to the listeners of today, whose ears are inured to the dissonances which have become commonplaces in modern music.

It is interesting, in this connection, to trace the history of the dominant seventh, a chord which, once experienced as harsh and fundamentally disagreeable, has now lost much of its dissonant effect and taken on the comparative mellowness of a concord. It must again be recalled that consonance and dissonance, in music, are only relative terms. In the beginning of the modern harmonic development this discord, like all other discords then considered extreme, was either eschewed

or only used with careful preparation and followed by as careful resolution. Later music dispensed with preparation, and modern music is dispensing with resolution. In the same way the now satisfying minor common chord was once eschewed as an ending because it was felt to be less consonant than the major common chord, and therefore did not give that effect of finality and stability which was felt as essential to a musical ending. For the minor third, the dissonant interval, was substituted the major third, itself not entirely consonant but felt as being closely related to the tonic by reason of its occurrence in the harmonic series of that note. This use of the "tierce de Picardie" in the final cadence was extremely common up to the time of Bach. Today the minor common chord is felt to possess an absolute consonant value. From these examples it can be clearly seen what a difficult matter it is to discover how far any discord, particularly when it is a commonplace one, like the dominant seventh, is experienced as intrinsically agreeable or disagreeable, and how far it is experienced as such through the musical associative values which cling to it. As a fundamental discord containing dissonant intervals whose overtones clash, the dominant seventh is, in itself, "piquant." It is exciting. Because of this inherent exciting feeling-tone, and also because of its close natural as well as musical relation to the tonic common chord, it arouses expectation. The feeling-tone aroused by this

chord, therefore, is for the normal musical subject modified according as that expectation is realised in terms of music or of physics, or of both. When the listener has a normal musical bias, he is only satisfied by the chord's proceeding either to an actual resolution, or to an imagined one. It is thus impossible to assess the value or extent of the intrinsic feeling-tone aroused by this chord when it is heard by listeners even of only moderate musical experience. Any experiments which I personally made with regard to the feeling-tone aroused by discords at the sensory level, had to be made either with extreme discords, which possessed very little consonant value, either intrinsic or derived from association; or on subjects who were naturally unmusical. The latter were not really successful subjects, as usually where the subject was unmusical his appreciation of slight differences in chords was not very acute. I found a certain subject quite <sup>incapable</sup> of preferring example (a) to example (b)



To return to the question of feeling-tone with regard to the response at the sensory level we find that the following conclusion may be reached. As a general rule the fundamental pleasant or disagreeable feeling-tone aroused by such tonal

stimuli as I have been considering, arouses almost involuntary attention. (1) But the tonal stimuli which produced this effect are not followed up in their relation to one another.

(1) Examples of such acts of involuntary attention also occur when the subject is recalled from following associative trends evoked by the music by a sudden unexpected dynamic effect. The reaction to an abrupt fortissimo on an unusual discord of the listener who is actively following the music is also often a reaction at the sensory level.

In the following passage from Beethoven's 8th Symphony, the unexpected change of harmony at the point marked with the asterisk is experienced almost purely at the sensory level on the first time of hearing this work.



This same effect occurs a second time, but the sudden fortissimo on the C#, instead of returning to F, is followed by a complete change of Key. The effect of the C# is now much more than "not C", as in the first case. The change is followed at a higher level than the sensory, and is recognised as a prelude to further musical development. Similar dynamic changes in harmony occur throughout Beethoven's music. Doubtless Haydn also knew the effect which such sudden changes of dynamics and harmony had on his audiences, when he introduced the famous fortissimi effects in his London Symphony in order to recall the attention of the audience to the music.

Thus we see that an important characteristic of the response at this level is that it requires the minimum of intellectual effort. This is clearly revealed in the response to rhythm as well as to pitch, of the individual who enjoys music at the sensory level. He follows rhythmic stimuli as repetitive, but unconnected; not as forming a pattern or unity of time-relationships in the way the perceptual listener grasps these. He has the impression of pace, but does not connect or contrast variations of pace; while the subtle patterns of the rhythmic development of music are not recognised. Thus he can have no grasp of music as a formal or artistic unity. Attention at the sensory level is involuntary and static. The interest is not a growing interest, but remains a static interest in the physical material of music. This is the most obvious reason why the layman prefers to enjoy music at this level. There is demanded nothing from him. Moreover he likes the popular and physiologically agreeable tunes because they are easy to follow, or even need not be followed at all, but just enjoyed, because their value to such subjects lies in the large degree of pleasant or exciting feeling-tone they arouse. The layman is satisfied with this effortless pleasure which the musician eschews because of the commonplaceness and barrenness of the effects which produce it. The musically untrained layman thus receives a maximum of pleasure with a minimum of effort. The cultured listener, on the other hand, has

to do intellectual work in order to enjoy his musical experience. He demands more than physiological pleasantness and is willing to expend himself in order to obtain the final aesthetic pleasure and satisfaction which he values.

Normally the sensory response to music occurs in connection with, or as the basis of, other more complex responses such as the associative or the emotional responses on the one hand, and the critical or aesthetic responses on the other. As a basis on which our further and more complex experience of music is built up it has been necessary to give this slight indication of the salient features of the sensory response. Each listener must start off at this level. In some individuals, like Mozart who is the example par excellence, the progress from this bare response to music, as undifferentiated sensory material, to the aesthetic response which involves first perception of the relationships of music, and then grasping and understanding the connections of the formal unity of music as an art-form, is extremely rapid. Such subjects possess, as we shall see, an inherited aptitude or predisposition for grasping musical relationships with a minimum of practice. But it must be emphasised again that no matter how quickly the subject attains to aesthetic listening, his experience begins at the sensory level.

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CHAPTER III.

LISTENING AT THE PERCEPTUAL LEVEL.

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Listening to music at the perceptual level forms the response of all trained musicians, of the less well-trained adult and child, and of those who, while not technically trained, are familiar with music through constantly hearing or attempting to interpret it. It is an advance from the first type of response towards a more complex and organised type of experience, and follows upon the sensory response with training or further musical experience.

From the aesthetic point of view musical experience at the perceptual level is obviously much more valuable than the experience at a lower level. It has already been pointed out, however, that the purely sensory response is more of a hypothetical possibility than a practical reality. Except in the case of animals or of subjects hearing music for the first time, or of those who are tone-deaf, it is rare for musical experience to be limited to a bare sensory grasp. There can be no rigid line of demarcation drawn between the two levels. Sensory experience shades into perceptual experience in a scarcely definable way. Even the tone-deaf person, for example, can discriminate between tones that are high, and tones that are low in pitch, though he may not recognise definite intervals.

Just as it is impossible to say where the response to music is only a sensory response and where it passes into perceptual experience, so it is impossible to do more than indicate the range and variety of the perceptual type of response, and suggest how perceptual experience of music passes into conceptual experience. The perceptual response to music must therefore vary considerably in value; from the experience of the infant of fourteen months who follows its mother's song with approval and endeavours to imitate the rise and fall of the pitch-line, or who marks the rhythm by gleefully clapping his hands;<sup>(1)</sup> to that of the cultured listener or composer, whose experience may transcend the perceptual level and rise to the conceptual. Between these two extremes there are all grades of perceptual experience; and we shall now proceed to see what are the distinguishing marks of all such responses to music.

In the perceptual response to music, the interest is no longer confined, as at the sensory level, to a bare interest in the sense-impressions immediately present to sense. It is not solely an interest in the sound-material of music for its own sake as bare sound. It is a growing interest in the music itself, an interest which becomes more and more complex, yet more definite, as the music progresses. It is an interest

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(1) W. Stern, Psychology of Early Childhood, Pp. 352-3.

directed, not consciously perhaps, towards a musical goal, the final achievement of which brings a certain measure of satisfaction, as will be seen. The experience is definitely conative inasmuch as the subject strives to follow the music with which he tends to identify himself. In the less experienced listeners the striving is more apparent, as the grasp of the music requires more of an effort.

Since the interest in the course of the musical experience is an intrinsic interest - interest in the music for its own sake - there is progressive expectation. Expectation is present in a varying degree from the beginning to the end of the course. This expectation is conditioned in extent and definiteness, in quality and direction by the past musical experience of the subject and by the degree to which he has organised that background of past experience. That is, the quality of his present experience - his aesthetic interest and satisfaction - depends on a (musically) intellectual basis. This growing interest involving that expectation and pursuit of a musical goal, becomes at once more complex and more definite and unified as the end of the course is reached. It becomes complex as the extent of the music in all its variety is unfolded; it becomes unified according as the musical goal is more definitely expected or predicted. Interest thus depends on grasp; grasp means the perception, the following,

and the understanding of the musical relationships. But the grasp or recognition of the significance of the relationships is not always easy. The ease with which the relationships are perceived and followed (and consequently the success of the grasp of their musical significance - which is the basis of aesthetic interest) depends on the receptivity of the subject to those musical relationships. Receptivity to musical relationships includes general sensitivity to musical sense-stimuli, as well as the ability to perceive the relationships of these, and to predict further musical development on the analogy of familiar relationships. The perception of and interest in these musical relationships, the effort involved in grasping and following them, and the expanding interest accompanying the expectation of further musical development, are the qualities which chiefly distinguish the response to music at the perceptual level.

The wider and better organised is the individual's musical background, the more easily will he perceive and follow the relationships, for he will be able to take more for granted. Thus the greater will be his interest in the music. His musical expectation - the ability to predict - will also be more definite; though within more extended limits. That is, the greater the extent to which he can make use of his past experience, so will his progressively growing expectation in the course of following the music be more complex, and at the same

time more definite.

This may be followed more clearly by means of actual musical examples. Let us first take the way in which a child, a student and a musician respectively would listen to the following progression or simple harmony exercise, example (1); or better still, to a perfect cadence as illustrated in example (2):

The musical notation consists of two examples, (1) and (2), written on a grand staff (treble and bass clefs) in 3/4 time. Example (1) shows a progression of chords: C major (C4-E4-G4), F major (F4-A4-C5), C major (C4-E4-G4), and G7 (G4-B4-D5-F5). Example (2) shows a progression of chords: C major (C4-E4-G4), F major (F4-A4-C5), C major (C4-E4-G4), and C major (C4-E4-G4). The notation is written on a grand staff with treble and bass clefs.

If the child has no training in harmony or has had no opportunity of becoming familiar with similar progressions through hearing or playing simple harmonies, unless he is gifted with an exceptional natural grasp of musical relationships he is not likely to have a definite expectation as to what chord will follow the dominant common chord at (a) in example (1); still less as to what will succeed the same chord in example (2).

He will, in all probability, experience a certain dissatisfaction, perhaps a feeling of suspense or unrest, if the music is left hanging in the air at (a). This feeling would probably be tempered with a strong inclination to hear again

the sound of the first chord. This is partly explained by the effect of instability which the dominant chord gives, when it has been preceded by the tonic as in the first example. Being at once a development out of the tonic chord (its notes are included among the upper partials when these are left free to vibrate naturally, and are not cut out, as in a piano), and also being in strong natural contrast to it, the dominant chord has a natural tendency to return again to the tonic chord.<sup>(1)</sup> Thus, in the first example, the effect of this chord (a), is determined partly by environment or context, and partly by its natural tendency towards suggesting the tonic chord. From its position in the musical context, its effect is also controlled by the sound of the tonic chord which is carried over through the succeeding chords, and is therefore felt as tending to recur again. The pitch-outline of example (1) is felt as a movement away from the tonic to a point in strong contrast to the tonic, and a movement back to the tonic.

But with the child the effect of the chord (a) may not have any more complex result than the arousing of a bare feeling of dissatisfaction, with the hardly realised desire to return to the initial feeling of stability or repose aroused by the first chord. It is an indefinite expectation coloured with exciting feeling-tone. In the untrained adult listener the experience may take on a little greater definiteness.

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(1) W. Prout, Harmony. Its Theory and Practice, P. 87.

He will probably predict a return to the first chord; but if he heard, instead of the resolution in example (1), the following progression -

The image contains two musical examples, (3) and (a), written on a grand staff (treble and bass clefs). Both are in 3/4 time. Example (3) shows a progression of three chords: a triad of G4, B4, D5 in the treble and G2, B2, D3 in the bass; a triad of A4, C5, E5 in the treble and A2, C3, E3 in the bass; and a triad of B4, D5, F#5 in the treble and B2, D3, F#3 in the bass. Example (a) shows a progression of three chords: a triad of G4, B4, D5 in the treble and G2, B2, D3 in the bass; a triad of A4, C5, E5 in the treble and A2, C3, E3 in the bass; and a triad of B4, D5, F#5 in the treble and B2, D3, F#3 in the bass. The notation is handwritten and includes some annotations.

there would not be much difference in the satisfaction which would attend the final chord. He certainly would not feel the discomfort a musician would feel at the consecutive octaves, the proceeding from the fifth to the octave in the treble and bass, and the falling of the leading note to the fifth instead of its rising to the tonic. A beginner in harmony would have a much more definite expectation as to what would succeed the chord (a); and also a correspondingly definite degree of satisfaction according as the resolution of this chord fulfils his expectation. The obvious progression to the tonic chord would be his first thought. Should it occur as in (3), he would probably dislike the bareness of the consecutive octaves; and there would also be disappointment caused by the leading note's falling, this not being in agreement with his expectation of an orthodox musical relationship.

But if he is a little more advanced musically, his expectation as to what will follow the chord at (a) will not be limited to the example given. It may include a realisation of a wide choice or variety of resolutions. He may be prepared either for the tonic common chord, or for the minor common chord on the sub-mediante - an interrupted cadence.

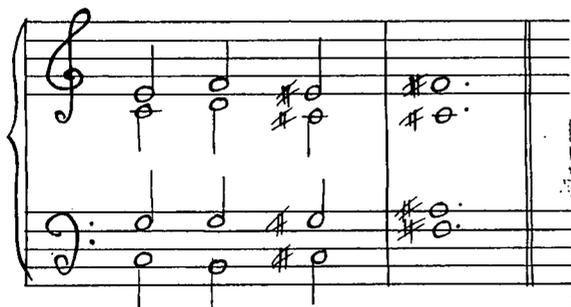


His interest and expectation are thus in two directions; equally definite; - though neither may be explicitly formulated - towards resolution in a perfect cadence, or resolution in an interrupted cadence. He does not have to think these resolutions in terms of their technical names, or even of their constituent notes; though, if his ear is acute and his training thorough, he will at once perceive any variation from the formally correct resolution. As a layman he need not have received any technical training in harmony at all, and still expect, recognise and differentiate between these two obvious resolutions solely because of his familiarity with similar progressions from their constant occurrence in music.

Suppose, however, taking now example (2), the dominant seventh chord is not followed by either the resolution or the tonic or the submediant, but by such an enharmonic modulation as occurs in the following passage:-



or, keeping to the key of the original example:-



If the student or layman has had only a limited musical experience, such a progression may never have occurred in his experience, or if it has, he may never have noticed it (because he was unable to "grasp" it). Then, should it occur in such circumstances as render his following of the chords more easy, as in a simple passage like the example played on the piano, he will probably experience some sort of shock of surprise. The musician or more advanced student, or even the practised layman who has been accustomed to following such

progressions implicitly, even if he does not understand them explicitly, knows too well how much variety is possible in harmonic progressions to be greatly surprised, though he may have a moment's hesitation before he accepts the unexpected turn things are taking. His surprise would depend partly on the context in which such a progression occurred. He might get just such a shock as the musically unsophisticated person, if he were to hear a similar progression out of its proper environment - as it would be if inserted in a straightforward simple harmonic passage of Haydn, for example.

But suppose, instead of its resolution, he hears the first dominant seventh followed by another, as in the following passage from Debussy's "La Cathédrale Engloutie.":

The image shows a musical score for a piano piece. It consists of two staves, treble and bass clef. The key signature is three sharps (F#, C#, G#). The piece begins with a fortissimo (ff) dynamic. The melody in the treble clef consists of quarter notes: F#4, C#5, G#5, F#5, E5, D5, C#5, B4, A4, G#4, F#4. The bass line consists of chords: F#4-C#5-G#5, F#4-C#5-G#5, F#4-C#5-G#5, F#4-C#5-G#5, F#4-C#5-G#5, F#4-C#5-G#5, F#4-C#5-G#5, F#4-C#5-G#5, F#4-C#5-G#5, F#4-C#5-G#5. The chords are marked as dominant seventh chords. The piece ends with a 'molto dim.' (molto diminuendo) marking and the word 'etc.'.

If he is hearing such a passage for the first time, when he finds that each dominant 7th is succeeded by another, and yet another; from his general knowledge of harmony (or experience of music) which would include a knowledge of sequences, he is not surprised when he finds that each dominant 7th instead of resolving, passes onwards to another. The satisfaction of his expectation is delayed from chord to chord; while his expect-

tation as to what will happen is becoming more and more definite. This delaying of the satisfaction of resolution as well as the sense of instability yielded by the changing tonalities, gives him an impression of impermanence and insubstantiality which he in turn transfers to the music.<sup>(1)</sup> This is, no doubt, the effect Debussy intended. Again it must be insisted, his attitude to such progressions, and the degree and direction of the expectation aroused, depends to a large extent on the context in which he hears them. Moreover, there is also bound up with this the question of the larger background of varying styles; as well as the tonalitive system in which the progression is written. If we listen to a nocturne of Chopin, we do not expect the same qualities - i.e. the same formal construction, or the same kind of pitch and rhythm relationships, that we expect in a Bach fugue, for example. Up to a certain point music is heard and enjoyed relatively to its musical-historical background. "Objectively speaking, it is beyond doubt . . . that the different styles of expression of distinct works and schools are due to a completely different collocation of the musical elements."<sup>(2)</sup> Therefore to appreciate a work of a certain school,

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(1) See Chapter XI.

(2) E. Hanslick, The Beautiful in Music, P.89.

our interest in that work, and our demands as to the kind of satisfaction which shall follow the musical expectation aroused, must always be in accordance with the necessities of technique demanded by that school. This is always borne in mind by the musically cultured listener who follows a work in a style with which he is familiar. (He need not have heard that particular work before in order to place its school.) When the same listener follows an unfamiliar work, the author and the style of which he does not know, he has to form his own judgment of these things from his background of general musical knowledge, though he need not do this explicitly, while the work is progressing. (1)

(1) This question of the recognition of different styles in music, and the effect which this implicit recognition has on aesthetic enjoyment, comes up again in connection with "taste". What is musically right in one place, may be musically wrong in another. The intrusion, for example, of the fine-sounding cliché in a straightforward passage would sound vulgar and out of place to a discriminating listener. Wagner could write with effect chromatic passages like the opening theme from "Tristan and Isolde", or the example from "Tannhauser", which in another's work on a different scale would sound banal or maudlin.



## Footnote Continued.

etc.

These examples avoid the sticky sentimentality of a song like "The Rosary," where the melody trickles down in semitones against a rising accompaniment.

voice

etc.

We thus see how the complexity, the definiteness and the direction of the expectation, as well as the attendant interest, of the listener's experience at the perceptual level, are dependent on the scope of his past musical experience. It will be necessary to examine how he forms that musical background. Immediately we are brought back to the question of the perception of musical relationships. Only by constantly attending to music can he extend his grasp of musical relationships. By increasing his power of musical perception he adds depth and richness to his musical background, since he is able to take more and more for granted.

In attending to the music he need not objectify the relationships - i.e. think about them - as long as he feels them - i.e. follows them. Though at first he may not distinguish them clearly, if he continues in his effort to listen, and does not remain content merely to hear, he will soon come to a clearer grasp of them, though he may never be able to name them. But the developing of the capacity to perceive relationships by listening only is slow work, and in the ordinary listener never, or rarely, reaches the degree demanded for the perfect appreciation of musical works on a complex scale. The layman listens with an effort; though the effort grows less and less with practice. But opportunities for listening may come but seldom, so his progress to the heights of aesthetic appreciation may never rise far by these means

alone. Here the advantage of technical training must be recognised. By objectifying musical relationships - as any student of the "theory of music" learns to do - he achieves a clearer grasp of them. He is then able to follow them subjectively (as in musical absorption) when he hears them again. Technical training is a short cut to aesthetic listening inasmuch as it increases the power to grasp musical relationships and to take them for granted. The only disadvantage lies in the possibility which too often actually occurs - that the subject may become interested in objectifying and analysing the relationships, and in criticising their arrangement, that he neglects to live them and enjoy them as music.<sup>(1)</sup>

It is by recognising and following the immediate relationships of musical sounds in all their various attributes that we begin to grasp and become interested in, the "meaning" of music. This recognition is followed up, in aesthetic listening, by the formulating of the more immediate relationships into a wider embracing relationship; in other words, into a musically coherent system, or significant musical whole. The ease with which we can eventually grasp the music as a complete and satisfying art-form, and the extent and satisfying nature of our interest in this art-form thus depend on our power of taking these relationships for granted. That is,

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(1) cf. Chapter I, P.56.

the factors of aesthetic enjoyment depend very largely on our background of musical experience. As we have seen, in musical listening, there is no need to think each successive relationship, but we must know it; and may think about it if there is need to do so - as when we try to follow a new work in an unfamiliar idiom; or when we are learning new relationships.<sup>(1)</sup> But though in listening to music we often take the relationships for granted, we must nevertheless have recognised them, or have had explicit thought of them, sometime in the past, before we can take them for granted. Our background of musical experience - our power of taking musical relationships for granted - thus varies firstly according as we possess sensitivity to sound and rhythm so that we are able to recognise and grasp musical combinations and progressions; and secondly, according to our ability to know them again, and to use them, by taking them for granted, in order to grasp and follow more complex relationships. Thus our present listening depends to a large degree on the extent to which we have organised our musical knowledge in the past to form a background to which to refer new musical facts.

What form, in music, do these relationships take, and how do they differ from the relationships which are followed and grouped in our appreciation of the other arts?

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(1) cf. Chapter VII.

An analysis of the process of following musical relationships, and of their organisation with regard to the appreciation of a work of music as a work of art, must obviously be first approached from the two aspects of pitch and time. The first aspect involves the perception of a succession of pitch-points, recognised as corresponding to certain fixed degrees in the natural sliding pitch-scale - these degrees being chosen and fixed in accordance with an arbitrary musical convention<sup>(1)</sup> - as a related succession of pitch-values; and a grasp of their relation to a particular tonal centre. These two conditions are fundamentally connected. For either the succession of pitch-points is recognised as related through their common but varying relationship with a certain tonal centre, or the recognition of a tonal centre to which certain notes more or less closely related is reached through the perception of the pitch-points as being related. It is almost impossible to distinguish which of these two grasps comes first in the perceptual experience of any subject.<sup>(2)</sup>

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(1) There is, as we shall see, a certain basis of physiological fact - Chapter IV, P. 120.

(2) One student possessing an average musical sensibility and a developed sense of almost perfect pitch (developed through practice, and not inborn), almost invariably named the interval between two notes remotely related, and of which one was known, directly, and without any reference to a tonic to which they could be both referred. Another student with not such a good musical ear, always heard the same interval in relation to a tonic which she supplied in imagination. For example, the interval Ab to F# on the piano was rightly named by the first student as

Footnote Continued.

as an augmented sixth: her ear giving an absolute value to the space through practice in recognising such intervals as absolute in themselves. The second student referred the same interval to a tonic Db; for she recognised the intervals as forming a dominant seventh in a certain key, and not as an absolute pitch-value between two single notes.

This double musical relationship which notes in music appear to possess is partly the effect of association, the pitch value of one note often being determined by its being heard in relation to another, which it suggests - e.g. the leading note suggests the tonic. It is also explained by the fact that certain basic pitch-relationships are recognised as fundamental. Such are the octave, the unison, and the perfect fifth. From the notes which make up the natural harmonic series music has singled out as a fundamental basis the notes of the major common chord; though these we now know in a modified relationship, as well as in their natural physical relationship.

Pitch-relationships are concerned with tone. They comprise all pitch-variations, taken singly as in the perception of melody, or in combination either as in harmony, when tones are combined vertically; or as in counter-point, when tones are combined horizontally. Pitch-relationship also includes the recognition of these as being in tonality, or in contrasted or combined tonalities. For a single work of music may be written in several tonalities occurring either successively, as in any major work of the classical style; or simultaneously, as in music where two tonalities are heard at the same time. Stravinsky's "Three Pieces for String Quartet" or "Saturn" in Holsts's Suite, "The Planets," illustrate the latter aspect. Pitch-progression thus means the general progression of the

tonal material of any work of music, in regard to the immediate relations of notes to one another and to a key, their extended relations to the whole work, and their relation to the tonality system in which the work is written. The key is only a higher unity to which the notes may be raised. The grasp of the key-relationship of a theme in C Major in a work whose main key is F Minor, and which is written according to the classical tradition, might be expressed thus:-  $(a^x)^n$ , where  $x$  = key of whole work,  $a$  = key of particular tune, and  $n$  = tonality system. All departures from the classical harmonic system, or modern European tonality, involve to some extent recognition of this traditional basis of tonality. Developments such as modality, neo-modality, chromaticism, etc. possess absolute value, but they also possess (for the modern listener) a derived value from the classical system of tonality. "Pure chromaticism would ignore the whole hierarchy of historical associations. It would dethrone all particular scales, for example, as having no more than relative import."<sup>(1)</sup> Thus it can be distinguished from multiple tonality; for though the latter "logically involves all possible combinations of tonalities,"<sup>(2)</sup> and thus approximates to chromaticism, it still possesses inherent traditional or conventional value.

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(1) George Dyson; The New Music, Pp. 93, 94.

(2) Ibid

The question of the second fundamental aspect of music, time, must be left to a later chapter.<sup>(1)</sup> But since music is progressive in time, this means that pitch-elements as well as time-elements are realised as progressive. Both pitch-progression and rhythm imply movement in time; pitch-progression also implies movement in space, in so far as the pitch-scale is felt to be spatial, or to possess direction.<sup>(2)</sup> Therefore, because these basic elements of music involve both movement in time, and direction in pitch, they cannot be coherently grasped except as possessing the most definite degree of relatedness. Music is a fluid art. It is a "becoming." As such, it is obvious that in order to preserve consistency and logic of musical thought (or meaning), only the simplest and most easily grasped relationships can be used. Unlike the raw material of the static arts, painting, sculpture, architecture (and even to a certain extent literature) where the eye can travel over and compare and synthesise the parts at leisure, the material of music permits no turning back. Therefore the relationships of music must admit of instant grasp.

(1) See Chapter V.

(2) The question of the effect of movement in space which changes in pitch have on the musical listener has been treated by Stumpf; but he offers no sound explanation. See Tonpsychologie Vol. I, P. 302.

The coherence of music depends on an immediate perception of relationships which are capable of being raised to include a higher degree of relatedness by means of the grasp of their connections, by being taken for granted, and by the activity of memory. <sup>(1)</sup> This is necessary if the music is to be understood and enjoyed as a single formal whole, or art-work.

It behoves us, therefore, to examine the necessity for these relationships, to analyse the way in which they are recognised and note the degree to which the recognition of an immediate pitch-relationship in music may be thus extended to embrace more complex successive relationships.

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- (1) The term "immediate" must be understood as relative. Where the subject by training and practice has extended his musical grasp, a greater number of notes will be recognised as related in a single grasp, and increasingly complex relationships will be recognised as related. Indeed, where the music is sustained throughout its complexity of parts by an embracing unity of artistic purpose - by a formal logic of musical meaning - then it is possible for the ear to grasp and follow extended and complex relationships by a kind of prolonged yet direct perception which is different from the more elaborate process of analysis and synthesis which calls in memory-activity proper characteristic of conceptual listening. This latter functioning we may see in the grasp of the sonata-form as a complex system of themes and their development occurring in related keys. Here we are progressing beyond the experience at the perceptual level. It is just as well, however, to stress the fact that by training and experience it is possible to extend the power of direct perception to embrace more complex and extended relationships, both of pitch and time, than could be possibly achieved at an initial grasp. In such an extended perception the related elements are held in suspension, as it were, until the reconciliation of a cadence which knits them all together. This perceptual grasp must be distinguished, to stress this point again, from that extended grasp of the complete work, involving as it does a complex act or series of acts, of synthesis, which is included in the experience of music at the higher level.
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CHAPTER IV.

PITCH - RELATIONSHIP.

CHAPTER IV.PITCH-RELATIONSHIP.

First and foremost it is necessary to explain why, out of the abundant material of the natural pitch-range which is at our disposal, the notes of music are limited to so few; and why these are fixed at particular definite intervals in pitch. The number of musical notes used in any form of the art varies within extremely restricted limits. In modern European music, the number of tones in use is limited to a scale of twelve semitones over a range of seven octaves. Other races use a varying number of notes - the scales of Oriental and Celtic music are based on the pentatonic scale, <sup>(1)</sup> though in the first case this is expanded to include as many as twenty-four notes. But though contemporary European musicians are now attempting to exploit the use of quarter-tones, it is unlikely that such an expansion of the pitch-material will become a commonplace in music for a considerable period. The vast existing musical literature written in the classical system, as well as the limited resources of the instruments now in use, will provide an effectual means of controlling such an increase of the notes at the disposal of music. Nowhere, except in the world of natural phenomena, do we find the occurrence of the natural sliding pitch-scale. The howling

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(1) The pentatonic scale is usually regarded as the basis of all modern scale-forms.

of the wind, the cry of the baboon, and the splash of falling water, employ the whole gamut of natural sound; but in these natural sounds there is no music as we understand it. Music is controlled by aesthetic conventions, never stable, but nevertheless formulated according to certain vital psychological demands. One of these demands is that the elements which make up music may be grasped by immediate perception.

I have emphasised the fact that music has an "infinitely rich but totally amorphous plastic material" in musical tones which may be shaped into form without the restrictions of the other arts.<sup>(1)</sup> Music is not representative; it is presentative. But though it is free from the restrictions of representative art (except in particular instances; like Programme music, where, however the restrictions are more or less arbitrary) music is not less rigidly controlled by conventions peculiar to itself. The essential character of music is tone in motion. But unless the tones in music possessed definiteness of position in pitch, and altered their direction by particular intervals in pitch, their motion could not be followed. If transitions in pitch were made by sliding it would be impossible exactly to determine the degree of changed direction. One cannot isolate and compare points or parts of what is a continuous stream with any exactness. The formal aspect of art, particularly with regard to music, demands such an analysis of

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(1) Helmholtz, "The Sensations of Tone, P.384.

the parts, and a synthesis of these into a whole. Since the essence of music is motion, and thus its individual parts can only reach the ear in succession, they must be of such a quality as to be readily, clearly and exactly grasped. "This is only possible when the steps of this motion (the change in pitch of musical sound) their rapidity and amount are . . . exactly measurable by immediate perception."<sup>(1)</sup> The distance between successive notes must be definite and positive, and the alterations in pitch must proceed by regular degrees which can be intuitively grasped. From here it is only a step to the formulation of the musical scale as a standard to which to refer the relative position in pitch of the notes used in music. The history of the scale is bound up with the history of the whole art of music. The emergence of the notes which form the modern diatonic scale is partly due to the natural affinities and contrasts of sound, and is partly a matter of slowly evolving convention. Thus, the relationship of the unison and the octave is naturally self-evident. So is, to a certain point, that of the natural perfect fifth. The major third, however, is a conventional interval, not a natural one.

Herbert Spencer tells us that music in the form of song developed from emotionally heightened speech.<sup>(2)</sup> Many other authorities connect the earliest appearance of music with the dance. There are still others who maintain that song

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(1) Helmholtz; The Sensations of Tone, P. 387.

(2) Herbert Spencer, The Origin and Function of Music.

developed independently of speech out of man's delight in the absolute beauty of tones and rhythms. <sup>(1)</sup> Whatever may have been the beginnings of the art, the first manifestation of song was probably in the form of a single sustained note, perhaps the accompaniment to some primitive form of dance-ritual. When the monotony of this single note was relieved by a second sustained note at another pitch, there was, in its essence, the art-form of music. This second note has been placed as occurring about a perfect fourth below the first, though this would be subject to considerable variation. Such a relationship, besides being felt as a strong contrast in pitch-value, also possessed the significance of external reality. It could, for example, be produced by a merely mechanical adjustment of the same string which vibrated as a whole to the first note. <sup>(2)</sup> Moreover, in a resonant bass voice it could be heard as a constituent of the fundamental note.

These examples are sufficient to show that the choice of the basis of the related notes of music depends partly on physical and partly on aesthetic principles. The physical principles which are at the back of the formal relationships of music are such as "can be deduced according to the laws of natural science from the physical nature of sounds, and from

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(1) Ernest Newman, "Spencer and the Origin of Music": in Musical Studies.

(2) Pythagoras stretched strings in order to fix the pitch of the relative notes used in music.

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their known physiological effects on the human ear." The aesthetic principles are those which have "resulted from the free action of the human mind; independently of any physical considerations."<sup>(2)</sup> This we may see in the modifications which are continually taking place in the construction of scale systems, and to a very advanced degree in the gradual change in the treatment of dissonance from before the seventeenth century up to modern times.<sup>(3)</sup> But "in many cases the aesthetic principles which have ruled the forms of music have not been (entirely) arbitrary, but derived from some more general laws that admit of being studied and conceived."<sup>(4)</sup> It may thus be conceived that "the artists who originated these forms have done so unconsciously according to some natural promptings which have forced upon them the ultimate attainment of the best forms of combination."<sup>(5)</sup> As we have seen in the example on page 108 regarding the establishment of the dominant or perfect fourth below (or perfect fifth above) a particular note, as being in marked aesthetic contrast to that note, it is possible to trace the forming of the simplest pitch-relationships of music back to acoustical laws.

(1) W. Pole, The Philosophy of Music, Chapter I.

(2) Ibid.

(3) This has already been referred to in Chapter II. Briefly, before 1600 dissonance required both preparation and resolution. From then to the twentieth century preparation was dispensed with, but resolution was still artistically necessary. In modern music dissonance requires neither preparation nor resolution.

(4) Ibid. P. 13. Pole here refers to the arguments put forward by Helmholtz, in "The Sensations of Tone." Chapter XIII.

(5) W. Pole, The Philosophy of Music, P. 13.

But even these simple, fundamental relationships have been greatly modified during the evolution of music. Such modifications have been partly the result of arbitrary changes made by musicians, as, for example, the taking over by Pope Gregory III of a debased form of the ancient Greek modes as the basis of Church Music. They also are the result of the limitations imposed on musical sounds by the technical deficiencies of the instruments which produce them. For example, the system of equal temperament was adopted as a direct result of the difficulty of modulating to remote keys on certain instruments tuned to just intonation. Finally, there are the modifications imposed by artistic expediency. Such is the explanation of those pioneer efforts made by many composers of today in order to escape from outworn musical traditions, such as the discarding of tonality. It was artistic expediency which led Beethoven to write music beyond the resources of the instruments at his command; justifiable since he thus anticipates many of the developments of today. This is also the justification of Mozart's writing the famous discordant passage in the Introduction to the C Major quartet of 1785. Thus we see that the choice of the degrees of pitch used in modern music was constrained partly as the result of natural laws, and partly owing to the modifications of these laws by certain arbitrarily framed conventions.

It is now necessary to describe how we locate and identify the pitch-position of a musical sound as being such and such. The perception of the pitch of sound has been explained by Helmholtz as being due to the sympathetic vibration, set up by sound vibrations, of the basilar membrane of the inner ear. Different parts of this organ are attuned to sounds of different pitch, and respond only when these particular vibrations occur. (1) Thus air-waves reach the ear, are propagated along the passage, and cause corresponding vibrations or tremors in the drum-membrane. These are communicated to the auditory nerve and from thence are transferred to the brain. When a single musical note is sounded the effect of this stimulus is transferred through the air as a single compound wave; since a musical note is not a simple tone but a compound one, including a fundamental tone and its overtones. The ear has the faculty of analysing any compound wave submitted to it, and presents those elements which form it separately and independently to the mind. (2) There they are reassembled to form the musical note. When a number of musical notes are sounded simultaneously, as in orchestral music, there is a similar only more complex process. The final effect is not a confused noise because of the conflicting nature of the many overtones;

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(1) Helmholtz, The Sensations of Tone; Chapter VI. Pp.188 ff.

(2) Ohm's Law. The ear refuses to recognise any sound-wave unless of the simplest form. Consequently it must discover the simple elements of a compound wave and make them separately audible.

for the notes are reassembled in the mind according to the experience which the subject has had in assigning notes of a particular quality to certain instruments.<sup>(1)</sup> The perception of the direction from which certain sounds proceed helps to simplify the correct assigning of the different notes to the instruments which produced them. Sight also plays a more important part than is realised in the discriminating of the tone-values of different instruments. The sight of the rhythmical bowing of the violins in unison, for example, or the play of the fingers on a wind-instrument may help a listener to assign certain notes or passages, the source of which puzzles him, to the right instrument. In attentive listening, moreover, he is also helped by the coherence of the passage which is given to a particular instrument. But recognition of timbres in listening to orchestral music is pre-eminently a matter of familiarity and association. The trained listener is at once aware that certain groups of fundamental and partials mean a particular instrument.

But in order that the listener may perceive the progressive pitch-relationships of the series of notes which (either singly or combined) make up music, there must be some central point to which they can be related. This occurs when he hears notes in relation to a key. Perception of key-relationship in

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(1) Helmholtz, The Sensations of Tone, P.98.

music involves the recognition of tonality. The psychological necessity of a tonal centre to which to relate notes so that their formal relations as music might be understood is the underlying principle on which has been founded our whole literature of music during the last three hundred years. Up to the twentieth century key-relationship formed the basis of musical form. All music had, till then, been written "in tonality." Therefore an extended perception of the relationships of "key" and "tonality" is necessary to the true appreciation of the formal (that is, the musical) significance of this music. Even the principles of contemporary music are based on an implicit recognition of the associative value of the traditional conventions of tonality. So firmly, indeed has tonality become established as the principle underlying all pitch combinations, that the perception of music as being in tonality has become almost instinctive. Such developments as polytonality, the whole-tone scale system, or any arbitrarily chosen tonality system like those framed by Schönberg, cannot, at the present day, be heard as absolute systems. The effect of the long-established classical tonality system may be no more than a sub-conscious one, but in the response to music written in other systems it is impossible to rule out its underlying influence. It is inconceivable that the human ear, which for so long has been accustomed to music written in the classical tonality, can now disregard it entirely. The growth of tonality

and its influence on listening have been slow, but since, like most of the conventions on which music is based, it has a foundation of natural law, its effect has been far-reaching. (1)

How is it possible to throw classical tonality aside in a single moment, and set up another system which has not gradually evolved along with the music expressed according to its laws as Schonberg and his school wish us to do?

Whatever, in the future, may be our reaction to music written according to atonal (= other than tonality) systems, at the present day it must be modified by the traditional associations of tonality. Thus we see that the perception of pitch-relationships in music is bound up with a deep-rooted recognition of the fundamental nature of tonality modifying the attitude to music, whether the music is felt as expressed in terms of tonality or as being different from it. (2)

- (1) Helmholtz traces the development of the classical European tonality system to its root in the major common chord as it occurs in the harmonic series. Since in its natural physical occurrence the major common chord is made up of tones whose vibration numbers are related in simple ratios, Helmholtz suggests that the recognition of such a perfect natural relationship makes the chord fundamentally and inherently satisfying. The major common chord, as we know it, no longer possesses the same unity of physical relationship. But though it is now only an approximation to the true combination it has become stamped by custom as the basis of the harmonic system of European music. It is still recognised as aesthetically satisfying and is the expression, in music, of perfect stability. Helmholtz, The Sensations of Tone. Chap. XII. P.332.
- (2) But though to the European mind the classical tradition of tonality has thus become more than an aesthetic convention, and through long familiarity has even acquired almost instinctive force, yet we must remember that "beside it, and before it, other tonal systems have been developed

Footnote Continued

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from other principles, and that in each system the highest pitch of artistic beauty has been reached by the successful solution of more limited problems." Helmholtz, The Sensations of Tone, P. 382.

In following music at the perceptual level, to recapitulate, notes (i.e. points fixed in pitch according to aesthetic convention based on natural law) are immediately perceived to be in relationship to one another, both through their occurring together, and through their intrinsic relationships to a common tonal centre, or key, the recognition of which involves an implicit acceptance of the tonality system.<sup>(1)</sup> But not only must the immediate pitch-relationships of notes be readily or intuitively perceived; they must also be grasped in their musical relationships, as making up a developing art-form. The first depends on the natural scope of the span of attention and the degree it can be developed to embrace more and more single pitch-elements as forming a related group. The second comprises a logical development of thought in which the perception of the balanced contrast of such internally related groups is extended until it has involved a complete grasp of their final reconciliation, which corresponds with the end of the music. The further analysis

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(1) Should the music be written in a new tonality system, dodecaphony for example, or any other system which lacks the stamp of traditional usage, then the relationships of notes are harder to perceive at a first hearing, and will continue difficult to grasp until the new system has acquired a certain hold through familiarity. Often music written according to a new system appears simple on paper, but is difficult to understand through the ear. The following example from Schonberg's "Pierrot Lunaire" may appear musical jargon even to cultured listeners. It seems to be written according to principles founded on a purely

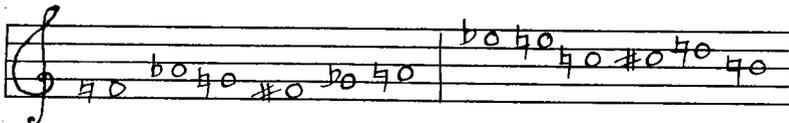
## Footnote Continued.

intellectual or mathematical basis, and not in accordance with the natural preference of the ear for particular groupings or arrangements of sounds.

The image shows two systems of handwritten musical notation. The first system consists of three measures. The top staff is labeled 'Orch' and the bottom two staves are labeled 'PS'. The second system also consists of three measures. The top staff is labeled 'pizz.' and the bottom two staves are labeled 'psf'. The notation includes various musical symbols such as notes, rests, accidentals, and dynamic markings like 'p', 'f', 'pizz.', and 'psf'. There are also some handwritten annotations and symbols like '< >' and 'Etc.'.

The following system of twelve notes, whose intervals are symmetrically arranged about a central axis is used by Anton von Webern in his "Symphony for Small Orchestra." But the knowledge of this system does not help the ordinary listener to understand the music.

## Footnote Continued.



It is significant that twenty years before the emergence of this modern school of composition with its bias towards intellectualism at the expense of the aesthetic value of beautiful sound in music, the Viennese aesthetician Hauslick quoted Grillparzer IX, 142, in support of his statement that the elements of music "are in some occult manner connected with each other by certain natural affinities" which "are instinctively felt by every experienced ear." - "The effect of music . . . is perceived and assimilated directly by the senses, and the verdict of the intellect comes too late to correct the disturbing factor of ugliness."

(The Beautiful in Music. Pp. 71 & 72 and Footnote to P.72.) This criticism may be pertinently applied to some of the works of modern composers. Often the "noise obscures the meaning," for "the extraordinary changes in idiom or method of musical expression" and their "strangeness of sound prejudice the musical public against the intellectual reception of contemporary music." (H. J. Foss, Music in My Time . Pp. 58 ff.)

of this process which, either directly or indirectly, calls in the functioning of higher centres, I must leave until later. <sup>(1)</sup> Though perception can be extended to embrace increasingly complex and longer musical progressions as related, the grasp of the complete system of tonal relationships as forming a significant aesthetic whole is no longer experience at the perceptual level. It involves memory-activity and imagination, since it implies both ability to recall past relationships and to foretell new developments on their analogy, and thus permits of a constructive grasp and interest in the formal significance of music - the unity made up of these related groups.

The span of attention (or consciousness) represents the extent of the perception of a series of stimuli which are directly perceived as possessing internal unity or stability. It is an immediate perception, being determined in its extent partly by the native capacity of the subject, and the degree to which his receptivity has been developed through training or experience. It also depends partly on the nature of the stimuli. In listening to music at the perceptual level attention is restricted to stimuli objectively present, and hence excludes the operation of memory proper, and of imagination. In the perception of a musical progression of auditory stimuli, e.g. a melody, or chords in harmony, the progression is first

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(1) See Chapter VII.

of all recognised as a progression. That is, the perception of any one note, or group of notes in a composite whole like a chord, is determined by the preceding and succeeding notes. A note is responded to in its environment. "Melody," therefore, "can be present in consciousness only if the response to a first tone carries over the response to a second tone. Harmony in its artistic form exists only if a preceding chord leads into a succeeding chord. Rhythm exists only when the time-distances between at least three pulses are given."<sup>(1)</sup>

Dr. Ortmann, from whom I have quoted these statements, follows them with the conclusion: "Without perception there can be no melody, no harmony, no rhythm. The rule of melodic and harmonic succession, and of rhythmical diversity have been formulated as a result of the existence of perceptual reaction."<sup>(2)</sup> This is obviously true. Nevertheless, the recognition of the coherence of note-relationship in music is not merely achieved by the grasp of notes as simply occurring together. They must be grasped in a formally connected way, as we shall see later.<sup>(3)</sup>

But their position in the span of consciousness is important from the point of view of perception. In the space of consciousness there can be present only a limited number of elements, some definite, at the forefront of attention; others far less definite and only on the fringe of attention. That

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(1) Otto Ortmann, "Types of Listeners"; in The Effects of Music, edited by Max Schoen, P.54.

(2) Ibid.

(3) See Chapter VII.

is, the different sound-stimuli possess value relative to their position in the span of consciousness at any given moment. In musical experience some sounds may remain only on the fringe of consciousness, never receiving individual attention. A good example of this is the effect of the accompaniments in bass and treble which are subordinated to the combined fugue and prelude theme in the last part of César Franck's Prelude, Choral and Fugue. These additional notes help to swell the cumulative fortissimo effect by making a harmonic background of which we are only vaguely aware.<sup>(1)</sup>

In the climax just before the cadenza of the same work there is a chord-passage leading up to a crashing dominant seventh on F#. Here it is the general dissonant effect of C major common chords over a pedal F# which occupies the attention, not the relative effect of each separate chord. This progression and the cadenza which follows is felt as leading up to the final resolution which comes with the return of the prelude theme in B Minor. The discordant elements in this passage are "held in suspension" as it were, the attention waiting expectantly for the final return of the tonic key.<sup>(2)</sup>

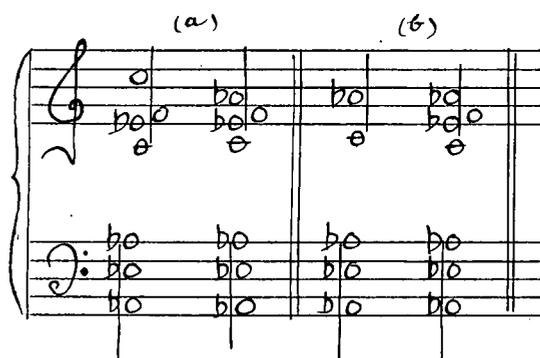
A parallel exists between the effect of this passage on the listener, and the silent reading of a sentence. We do not

- (1) César Franck. Prelude Choral and Fugue. See Fugue, Bars 178 ff.
- (2) César Franck. Prelude Choral and Fugue. See Fugue, - Bars 127, 128, 129 - leading to cadenza and re-entrance of prelude-theme at bar 154.

stop to consider each word separately, nor do we spell it, though we should notice the fact, in all likelihood, were it wrongly spelt. The mind holds each separate element lightly, ready to direct its meaning towards any goal to which the sentence as it nears completion, tends. Often, as in our experience of the passage from César Franck, we only find the key to the understanding of the whole sentence in the last word. Or we may perhaps see where it is leading before we have progressed beyond the first two or three words, just as we often foretell the direction of an obvious musical progression.

Pursuing this analogy we find that through all the succeeding stages the interest is sustained, although the meaning may sometimes remain in abeyance until the complete thought is formulated. Or just as we do not bother to read the whole sentence carefully, and skimming over the grammatical structure single out salient words, so we may catch the thread of the music without troubling to follow every detail. We are far more likely to do this than to consider each note, chord, or even phrase as a separate entity. They are all interpreted as parts of a whole. The musical meaning of each note, chord or phrase is thus relative to its position. What sounds right and musically logical in one place may not therefore sound logical and inevitable in another.

Position in the musical context has a noticeable effect on the relative feeling-tone of a particular chord. In the following example the chord of the added sixth has a different effect when preceded by a variation of itself, as at (a), from its effect when preceded by a common chord on the same bass note as at (b).



In example (a), there is a movement from instability to less instability; from unrest to comparative rest. In example (b) there is an opposite movement, from stability to instability - from a position of rest to one of unrest. It can be realised from this example why the disagreeable feeling-tone aroused by any discord becomes a matter of relative rather than absolute unpleasantness in music. The absolute degree of disagreeable feeling-tone of any discord depends on the number and nature of the dissonant intervals in the chord in proportion to the number of (conventional) consonant intervals it contains. (1)

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(1) It is the amount of clash or coincidence of the overtones belonging to the notes of a chord which determines its consonant or dissonant value.

In actual fact, the degree of dissonance of any chord is felt as relative to its musical context. What is felt as harshly discordant in a simple harmonic passage may have an almost consonant effect in music written in an extreme modern style.

These foregoing examples show how the relative value of the elements which are included in the perceptual response depends on their position. Can we assume that these elements, notes, chords, etc., can be grasped as related through the connection of proximity alone? That is, is the relationship of "togetherness" a sufficient artistic justification for their combination? As has been pointed out, the perception of note-relationship usually carries with it an implicit reference to a fundamental principle of pitch-relationship, such as a tonality system. But can a note-progression be recognised as vitally related - as musically significant - without such implicit reference to a tonal system? Whether notes occurring in a series can be grasped without such reference depends on the time-length of the progression; on the number of notes which form it, and on the nature of the intervals between successive notes. If these latter are not such as correspond with the familiar intervals of a familiar tonality they cannot be grasped at a first hearing, except in the rare case where the subject possesses absolute pitch. For example, notes proceeding by intervals involving quarter-tones,

or other intervals foreign to European music, are extremely difficult to grasp. Usually whatever the nature of the intervals there is reference, implicit or explicit, to a key, or to a tonality system. Certain familiar or frequently occurring intervals (like the progression of the leading-note to the tonic) are grasped intuitively. All intervals occurring within the diatonic scale can be grasped with a minimum of practice by a normal musical subject. So also can many chromatic intervals. The grasp of certain chromatic intervals is often based on their implied connections with a common key, or a system of keys. Some intervals may need to be thought out, made explicit, before their relationship can be grasped. That is, they are consciously referred to a standard to which they are both intuitively perceived to be related, in order that the relationship between them may become apparent. This standard may be a key, a key-system, or a tonality.

A practical illustration of this, though in another field than listening, may help to make my meaning clear. Reproducing is in a sense allied to real listening, for, except where it is mechanical, the reproducer must listen inwardly in order to reproduce accurately. Try to sing at sight the following three examples:—

(1)

Peter Warlock. "Bulalow"  
Oxford Carol Book, P. 18.

(2)

HOLST. Lullay my Liesing Oxford Carol Book, P. 12.

(3)

West-wärts Sweift der Blick, ost-wärts Stricht das Schiff .

WAGNER. Tristan and Isolde

It is easier to follow them interiorly than by actual singing. The progression of the voice from B $\flat$  to A $\natural$  to G, is easy enough if the accompaniment is disregarded. - Doh te lah - in B $\flat$  major, or mi (minor) re doh, in G minor, are all easily singable. But since A $\flat$  and G $\flat$  have occurred in close proximity to the A $\natural$ , and G $\natural$ , it is very difficult to sing the latter notes truly against the accompaniment. A true semi-tone is more difficult to sing than a larger interval under any circumstances. A $\natural$  is almost certain to be sung too sharp.

The difficulty in following examples (1), (2) and (3), either aloud, or inwardly, lies mainly in the fact that they are not composed of familiar progressions which are recognised at once as establishing a particular key or tonal centre. The Wagnerian fragment, in particular, is angular as melody; The intervals cannot be grasped intuitively by the ordinary subject. Nor can the ordinary layman grasp them with implicit reference to a harmonic background (i.e. to a key, or key-system) as the harmonies underlying this passage are too abstruse to colour the music associatively. Either the passage must become familiar through repetition, in which case the notes come to be grasped as related through their proximity alone - a relationship of which it is difficult to feel the logic, and which, to the normal musical ear, is unsatisfying and also rarely possible to achieve unless the fragment

is isolated from its context for the purpose of study - or a harmonic background (implying reference to a series of changing keys) must be supplied, either explicitly or implicitly. <sup>(1)</sup> Where the musician has a keen musical perception there may be only implicit reference. Thus the first five notes may be heard as occurring in the key of C Minor; the F# becomes "not G", and as such provides the maximum amount of chromatic contrast, occurring as it does on a long and accented note. This might be said to be the climax of the phrase. The last five notes are heard in relation to the key of E<sup>b</sup> major, which conveys an implicit reference to C minor, its relative minor key. The change to E<sup>b</sup> major after the F# implies either a recognition of the absolute pitch-value of a semi-tone, or familiarity with a chromatic chord containing F#, which will serve as a link between C minor and E<sup>b</sup> major. If the passage is thought about, however, it is most likely that the melody will be felt to convey a modulation from C minor to E<sup>b</sup> major, complicated by the insertion of a note remote to both keys. That this note occurs at the musical climax makes the tension most striking. The artistic purpose of this effect militates against F# being felt as the enharmonically changed G<sup>b</sup>, the minor 3rd of E<sup>b</sup>. Such an enharmonic change would not occur in a passage for the voice. G<sup>b</sup> is also less effective in this context since it is more closely related to both C minor and E<sup>b</sup> major,

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(1) cf. Chapter VII.

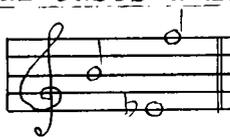
and therefore provides less contrast than F $\sharp$ . Wagner evidently had an onametapœic effect in mind here, and the use of the F $\sharp$  introduces a shrill harsh remoteness suggestive of the west wind. This passage is hard to sing, since there is no accompaniment to guide the voice. Melodies, on the other hand, of traditional type and form (according to the principles of key-relationship) are easier to sing or to follow than passages like the examples quoted. The musical interest lies in the readiness with which they can be grasped, and on whether the relationships are felt as musically satisfying and significant. The readiness with which they are grasped is partly dependent on the simple and obvious nature of the intervals, or on the fact that an appropriate harmonic background may be supplied imaginatively.<sup>(1)</sup> (I am here concerned only with the objective aspect)<sup>(2)</sup> There is therefore usually implicit reference to a tonality system..

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(1) Chapter VII.

(2) A similar illustration of the importance of the implicit reference to a key in the perception of intervals occurs in the ear-tests which form part of elementary music examinations. Simple intervals are directly perceived (and named, though naming is not important to my case) through an implicit reference to the key in which they occur. In the case of more complex intervals, such as the diminished 5th between B and F in relation to a given note E $\flat$ , for example, the relation of the interval in question to the given note is only in exceptional cases a matter of direct perception.

e.g.



The relationship may have to be explicitly formulated in any of several ways. First, both B and F may be

Footnote Continued.

related to the key of E $\flat$ ; the one recognised as an augmented fifth above, and the other a major ninth above. Or E $\flat$  may be felt as D $\sharp$ , in which case B is recognised as a minor sixth above.

The subject may also immediately perceive B to F to form a diminished fifth from his familiarity with that interval; and may relate it directly to E $\flat$  as the mediant of C minor, in which the interval occurs. The actual supplying of names is not the important part of this analysis; the important thing is that the relationships of intervals which cannot be intuitively grasped in themselves, or which cannot be taken for granted because they are familiar, is recognised by formulating them in their relations to a fundamental known system which includes both notes. By experience and association the subject learns to listen to notes as occurring in particular keys. Tonality thus indirectly determines the scope of pitch-perception. Unless the subject possesses a sense of absolute pitch, he relies on grasping musical intervals through their occurrence in a familiar tonality system. Training in pitch-perception soon increases the power of taking complex relationships for granted, without having recourse to such complex processes as I have described; for there soon comes a time when there need no longer be conscious reference to the larger inclusive relationship which was once called upon in order to elucidate intervals once too difficult to be immediately apprehended.

Experimental evidence as to the greater ease with which notes of a melody in tonality can be followed in comparison with that in which the notes of a melody in non-tonality are followed, is not lacking. Otto Ortmann concludes from experiments that "When tones were given on the piano in non-tonality, i.e. in an unfamiliar environment, and when these tones follow one another at the rate of approximately one per second, the memory span, or number of tones that is held as a unity in consciousness varies from two (for very young and auditorially weak persons) to six or seven for older or talented persons."<sup>(1)</sup>

In the case of melodies in tonality, there is abundant evidence of the greater ease with which these can be grasped at a single hearing. Musical history records cases where musicians have grasped, not a simple melody of half a dozen notes, but whole compositions, at a single hearing. The ease with which tonality melodies can be grasped is due to the fact that such melodies afford more points of contact with the listener's background of musical experience than the non-tonality melodies. He can "take more for granted" in the former experience, and thus the span of his attention can be extended to wider limits.<sup>(2)</sup>

But would the perception of successive notes occurring together in a common relationship to some familiar tonality system

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(1) Otto Ortmann, "Types of Musical Listeners" in The Effects of Music, edited by Max Schoen. P.55.

(2) See Chapter VII.

be enough to establish a recognition of their musical coherence? Setting aside for the moment the question of time-relationship and the union of pitch and time-relationship in the phrase, the sentence and the paragraph, etc., all of which must enter into the analysis of the extended grasp of a complete musical work, let us examine how far this recognition of pitch-relationship as occurring in tonality is satisfying. That is, without taking into account the relative duration or emphasis of notes and considering only the degrees in pitch by which they move, we ask, what constitutes their value as music? Do they become musically coherent - aesthetically satisfying - simply because they happen to occur together, and can also be grasped in relation to a tonality system?

Take, for example, the choral ode of Beethoven's Ninth Symphony. Why are these notes combined in this way so satisfying? The same notes, differently arranged would not convey the same musical meaning. The chords which make up the following phrase are grasped as a significant musical progression. As they stand, they are musically intelligible and artistically effective.



From  
Bach's  
St. John  
Passion.

The perceptual response to music implies therefore perception of order. Notes are perceived to be in a certain order which is grasped as musically logical. This perception of the significance of order in musical pitch-progressions is first of all bound up with the question of "suggestiveness." Each note or chord as it occurs in music tends to suggest, to the attentive and experienced listener, another. As we have seen in Chapter III, the ease, variety and definiteness with which these suggestions occur depend to a large degree on how far the listener is open to suggestions. That is, they depend on his background of musical experience, and the extent to which he has organised that background. Thus a cultured listener will perceive possibilities which will be ignored by the inexperienced layman. The fact that a particular note or chord can be predicted (not necessarily explicitly) means that when this note or chord does occur it has the effect of seeming inevitable. Should it not occur, the listener is temporarily disappointed, but here he has all the interest of novelty; besides being in a position to augment his musical experience by storing up the new relationship. Moreover, when the unexpected note does occur, it does not seem the less inevitable as long as it fits in with his standards as to what is musically logical.

Thus we find that the thorough-paced listener hears each

note as related through its conventional pitch-relationship with the next - usually with an implicit reference to a tonic or tonality system in which they both occur - and also through what might be described as its musical or logical relationship with that note. The perception or recognition of this logical relationship depends on the degree with which a certain note suggests to the listener, another as its inevitable successor. These two aspects of note-relationship are inevitably bound up with one another. The example of the inevitable progress of the leading-note to the tonic serves as a good illustration of my meaning. The expectation that the leading-note will move inevitably to the tonic owes its definiteness to the force of natural laws as well as to aesthetic convention. The leading-note tends to lean to the tonic, to be absorbed within it, partly because it occurs so close to it in pitch, and also because the tonic is felt as implicitly governing all the notes which stand in an immediate diatonic relation to it. The recognition of the diatonic scale as a basis element in the forming of musical relationships is due to a gradually evolved aesthetic convention, as has been indicated elsewhere.

In the experience of following the example quoted from Bach's "St. John Passion", each chord is felt to anticipate the next, which is heard as inevitable, even when the slightly unusual supertonic major seventh chord occurs where an ordinary six-four progression might be expected. This beautiful effect

which frequently occurs in Bach at the cadence of a minor key, may have, at first hearing, an effect of novelty; but at a second hearing its artistic logic is confirmed and it becomes inevitable. The effect of each chord is relative to what precedes and what succeeds it, as we may see if we consider again Beethoven's Choral ode. Here each note is felt to prepare the way for the next; actually anticipating it in the case of the educated listener. That is, the significance of this passage can only be realised if each note is perceived to stand in close and inevitable relationship with those which come before and after it.

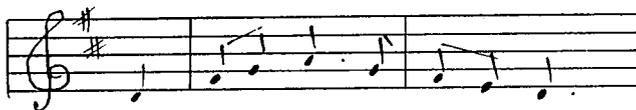
To sum up the conclusions I have reached, it can be stated that in perceptual listening notes are grasped as related in three ways: first by their occurrence together in a pitch progression; secondly, they are perceived as related because each note also bears an implicit reference to some sort of tonal system to which it is related in common with its neighbors; thirdly, these relationships are perceived as being musically logical in so far as one note anticipates the next, so that the subject comes to recognise the progression as inevitable. Finally I shall now show how the listener comes to recognise each note as it inevitably occurs as making part of a formal whole or musical art-form.<sup>(1)</sup> It is according as the listener follows the notes as making up a logical whole,

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(1) There is also their rhythmic relationship, as discussed in Chapter V.

that he grasps the musical significance of these as music. That is the listener must grasp the musical progression as a progression from an initial point of departure passing through successive apprehensible intervals of pitch, and coming to an end, the arrival at which affords complete satisfaction because of the reconciliation of all the elements of surprise and expectation, tension and relaxation, pleasant and disagreeable feeling-tone, which have made up the course of the experience. Moreover the progression must have sufficient contrast, balance and variety in order that interest in it may be sustained from the beginning to the end.

A consideration of the notes of the well-known ballad "Barbara Allen", justly valued for its beauty and coherence of musical form, will serve to illustrate the manner in which the attentive listener grasps the significance of the whole art-form through following the parts.



The eight notes which make up the first phrase are obviously felt as closely related first through their key - D major. From the first note the stability of D major is established. The melody begins on the key-note, the point of greatest repose, and rises by easy steps to the dominant. Here is the musical climax of the first phrase, affording the maximum

amount of pitch-contrast to the tonic. Because of the contrast of pitch-value the tension or feeling-tone is correspondingly high at this point. This is the emotional climax, as well as the musical or structural climax, of the phrase. From this point the music returns by familiar stages of the diatonic scale to the tonic. Thus we have a progression from a note - the tonal centre of the key of D major, and felt as the point of maximum stability or repose in relation to the other notes of the key it controls - through simple and easily grasped pitch-intervals to a point felt to be in the greatest contrast to the starting-point. Thence follows, by similar easy stages, the inevitable return to the tonic, the initial point of repose. Thus this phrase possesses that balance of form which affords the greatest amount of satisfaction in the aesthetic appreciation of any work of art. There is a swinging up to a high point from a low, when "high" implies contrast, both as regards position in pitch (here within the limits of directly or intuitively perceived relationships) and also as regards feeling-tone or tension. Thus, in the first place, in ~~the~~ following the pitch-outline of this phrase we grasp a certain unity of form. The eight notes which form this phrase are grasped as making up a significant whole. They are felt to be musically coherent.

The impression of unity which we receive from the balanced rise and fall of any physical phenomena is fundamental. We

receive similar impressions daily with regard to the physical make-up of our own bodies. The respiration, the beating of the heart, walking and running etc. all involve balanced movements. We also have constant experience of the unity which can be perceived in the rising and falling movements of waves and tides, and in the flow of darkness into day, and so on. (1)

This unity or balance of rising and falling is most obvious in the musical example quoted. Can we assume that the perception of such an ebb and flow involving a grasp of the significance of a balanced whole is essential to aesthetic musical experience? That is, does the experience of music involve the perception of a swinging away from a point of repose up to a climax or point of maximum contrast and suspense, which produces a feeling of instability and a heightened emotional tension, and then a corresponding return back to the initial state of repose? (2) I think it does. As we saw in the previous chapter, the following of musical relationships arouses interest and expectation. This interest and this expectation become more and more complex and intense until a maximum is reached at

(1) See Chapter V.

(2) In ~~the~~ aesthetic absorption this feeling of progression away from a point of rest and up to a climax thence back to rest again is subjectively experienced. The subject seems to record and follow these changes of pitch with his whole individuality. It is an excellent example of empathy or self-individuation.

the point of greatest tension - the musical climax. This is the point of greatest instability; where exciting feeling-tone is also at its highest. Up to this point the experience has all been a course away from the stability and repose of the beginning of the course. The relationships are apprehended as developing further and further away from the starting-point, and therefore in increasing contrast to the central pitch-point. Interest grows and feeling-tone becomes more tense as expectation increases. When the climax is reached it is a climax which is not a single effect but the cumulative result of all the steps which have led up to it. From thence onward there must be a swing back to normal or the tension and expectation which reaches its highest point at the climax remains unresolved and unsatisfied. In a perfect work of music the balance of the progression to and from the climax affords the most complete satisfaction. <sup>(1)</sup> There is progressive expansion of

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(1) It must be recognised, of course, that this swinging up to and falling from a climax is not, in music, a matter of pitch-development only. The climax is heightened by rise of the rhythmic interest as well. The climax of a work of music corresponds with the crucial point where both rhythmic development and pitch development have reached a maximum complexity. Interest is so extreme that the limit of relationships held in suspension, as it were, is reached. The climax is the point where the maximum degree of contrast is perceived to be still in relation to the initial starting-point. The crown of the arch is reached. Further development would bring chaos to logical musical thought. Onwards all is a resolving of the conflicting musical issues which are held in suspension by attention. The building down continues until the last note dies away. See Chapter V for the rhythmic analysis of the same example.

expectation, which as the course continues is partially satisfied from moment to moment, only to be strengthened again by the very thing that satisfies it. Expectation grows by what it feeds on, up to the point where suspense becomes most tense. From that point expectation lessens as satisfaction correspondingly increases, while there is a parallel lowering of the feeling-tone until the normal is reached. At the final cadence which in effect sums up all the relationships which went before it, there is expectation fulfilled, and complete satisfaction. That this final return to stability is vital to the perfect appreciation of music may be realised if we were to imagine the music cut short at the supreme moment of its climax - at the end of the third phrase, for example, of "Barbara Allen".

We have seen that an important characteristic of the grasp of pitch-relationships in music is that it involves a growing perception of each note as tending to introduce another, thus continually adding to the base of the interest. We now see that this growing perception extends into a grasp of each element of the system of relationships as a part of a whole which is felt to rise up to and to fall away from, a climax. Yet still we have not an entirely satisfactory explanation for the peculiarly satisfying experience in which melodies (and music) are grasped and enjoyed as beautiful. Notes may be arranged so as to conform to the aspects of relationship that have been described, and even to produce a coherent musical form,

without their being appreciated as beautiful.

Something of the beauty of music may be due to the effect of familiarity. Certain musical combinations fit in with our accepted heritage of music, summing up, as it were, what has been said musically in the past, yet pushing onwards to a new significance perhaps not fully realised but only guessed at. The newest work has aspects which connect it with all past music, just as an old and familiar work may suddenly open visions of a new world. This question of the musical associative significance of music will be discussed in a later chapter. It is only necessary to emphasise here that beauty in music and the changing standards by which it is assessed will ever remain among the unfathomable mysteries of the art.

We must remember, however, that beauty is a quality of a whole. Music is not a series of isolated phrases or melodies; it is a balanced and complex whole possessing that indefinable unity of form which we know is characteristic of all great art-forms. But since each of the parts of music also constitutes in itself a balanced whole, as we saw in the case of the first phrase of the ballad "Barbara Allen", it is possible to deduce from the analysis of the experience of these, conclusions which will apply to the experience of the whole work.

If we examine the whole of the above ballad in the light of our analysis of the first phrase; we may see how in aesthetic listening we follow and grasp it as a whole. Each phrase

develops with clearness and felicity from the preceding phrase; the ending recalls the first, but a slight variation gives it the emphasis needed to create a sense of finality. The first phrase consists of two unstable and complementary parts together forming a whole, inwardly stable yet requiring to be balanced by a second phrase similar in structure, but opposite in quality to the first. The experience of these two successive phrase unities cannot be held in a single act of consciousness, however. The grasp of their connections implies the activity of memory. The second phrase is heard as reminiscent of the first, yet as different from it, and as going beyond it. Thus there is implicit comparison. In the experience of the second phrase there is a basis of something familiar which becomes interesting by the addition of a novel turn. Though each of these two phrases is complete in itself, and though together they make up an individually balanced whole, more phrases, similar in structure, are needed to complete the unity. The whole tune thus consists of a series of units, each internally stable, but relatively unstable, combining with one another to form a complex unity which embraces the whole system of the component parts. In the experience of the complete melody, just as in the experience of the single phrase, there is the same development of expectation, and mounting of interest, setting out from the initial point of rest, swelling up to a climax, and falling back to the final cadence when stability is once more established.

It is only by experiencing this small work as a complete and balanced whole that we can obtain true aesthetic enjoyment. The tune must be followed and grasped in its entirety in order that its musical significance be understood. Each individual element must be grasped and understood in its essential relation to the whole. Should any one element be displaced, the musical coherence is destroyed. A new tune may thus emerge, but this requires an entirely different experience to appreciate it. Should a more drastic alteration be made, such as changing a phrase, unless the new addition is equally satisfactory as a part of the musical development the result would be inartistic, and incoherent.

But the appreciation of a complete work, as can be seen in the above analysis, can no longer be discussed as a response at the perceptual level. It involves more complex analysis and synthesis, and therefore the retaining of separate parts of the progressive whole in the memory to be contrasted or compared with the parts which follow. The grasp of the significance of a complete work is experience at the conceptual level.<sup>(1)</sup>

It has, however, been made sufficiently clear that the perceptual response to music is a most important aspect of musical experience. It is a response with an intellectual basis, inasmuch as sound-relationships must be grasped in an extended perception in which these elements or relationships are actively thought, either implicitly or explicitly. Sounds in music are

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(1) cf. Chapter VII.

not simply heard, they are followed and understood. When they are so familiar that their relationships are taken for granted without being explicitly formulated, the effort involved in following music is at a minimum, and the subject is best able to identify himself with the music, though sometimes excessive familiarity means that there is a waning of aesthetic interest.<sup>(1)</sup> But where the music in itself possesses sufficient beauty and significance to sustain interest and where the relationships are not so obscure as to prevent their being readily grasped, there is the occasion for true aesthetic listening.

In the following chapter on Rhythm, I shall endeavour to show that while the barest recognition of rhythm as progressive accent may exist at a very low level of musical experience, the grasp of rhythmic relationship extended to embrace the whole time-structure (form) of a work of music, is characteristic of musical listening at higher levels. In actual fact, however, it is impossible to separate pitch-progression from rhythmic-progression, as they are indissolubly wedded in music, each serving to emphasise and make clear the other.

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<sup>(1)</sup> cf. Professor Dent's attitude. Introduction, P.21.

CHAPTER V

RHYTHM.

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RHYTHM.

"Rhythm is a necessary characteristic of all motion."<sup>(1)</sup>

Since music may be regarded as ordered sound in motion, any analysis of the aesthetic appreciation of music must include an analysis of the perception of rhythmic relationship as an essential factor of music. Rhythm is the structural principle of all the time-arts. In a broad sense, where the meaning of rhythm may be taken as synonymous with "balance" or "symmetry", rhythm is also the principle which gives formal unity to the space-arts.<sup>(2)</sup> But with regard to these the perception of rhythm is an experience achieved through the eye. Moreover, it is not an immediate perception, or at any rate, only rarely so. In the contemplation of the space-arts the eye has to travel over lines and surfaces, and compare and contrast colours and shapes. In the art of music rhythm is perceived through the ear. It is thus an immediate perception in the sense that there can be no turning back to relate and compare parts in actual fact; although in the extended experience of a complete work of music, there is both analysis and synthesis. But in the process of analysing, comparing, contrasting and

(1) Herbert Spencer, First Principles, Chapter X.

(2) "Rhythm is a conspicuous instance of the unity in variety which characterises beauty." (K. Groos, The Play of Man, P.23).

combining, which takes place when we follow music, the subject relies on memory as well as, to a certain extent, on imagination. Setting aside until later this question of extended analysis and synthesis in musical experience, we find that, owing to the transient nature of musical sounds (through which rhythmic progression is attained), the perception of rhythmic relationship in music must necessarily be direct.

We have seen that the sounds used in music are perceived as occurring in unique relationship to one another as regards their pitch-order. It now remains to be seen how pitch-relationship is complicated by time-relationship. The formal significance<sup>(1)</sup> of music has to do with this double relationship of sounds in pitch and time. This union of pitch-relationship and time-relationship makes up that progressively coherent system or unity which we come to know as the musical work of art.

It is therefore impossible to discuss the perception of rhythmic relationship in music without reference to the notes through which rhythm is conveyed. The perception of a soundless progression of rhythmic stimuli does not occur, except in certain special cases, in real listening to music. One of these special cases is that of reading music from a score. Here the grasp of rhythmic relationship is reached through the

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(1) The term "formal significance" is used here to mean the absolute value of music - its "musicality." The term "form" in this sense is not to be confused with the mere framework - the structure or architecture - of music.

imagination, occurring in connection with the imagined sound-relationships. Rhythm may also be felt as existing throughout the duration of short passages of silence which may sometimes occur in music. There is, for example, the case of the two-bar rest. Here the rhythm (= recurrent accent) felt as pulsating through the silence is relative to the rhythm of the notes which precede and succeed the silence. No perception could mark this break in the flow of music as rhythmic unless the consciousness of rhythmic progression is carried over through that silence and continued by the music which follows. Such a continuity of rhythmic impression could not be sustained through a longer period than could be grasped in a single act of consciousness. It is therefore rare for music to contain periods of rest greater than the duration of two bars.

There is also the exceptional or extraordinary case where rhythmic movement (and sometimes pitch-vibration also) is perceived by means of another sense than the ear. The case of Helen Keller is well-known. She is described as following music played on a violin by means of the sense of touch. By placing one hand on the belly of the violin, and the other on the violinist's shoulder, she was able to enjoy the musical vibrations. But the impression which Helen Keller received cannot be described as a legitimate musical experience; even though, as she stated, she received from it keen enjoyment.

Such an experience is analogous to that which a man, born blind, might receive should he attempt to explore a masterpiece of sculpture by touch alone.

The perception of rhythm and rhythmic relationship in music must therefore include the perception of the frequency, the relative intensity and accent, and the relative duration of the notes through which the rhythmic impressions are conveyed. These varying attributes of notes, from which we receive impressions of rhythmic relationships, are intuitively referred, by the musical listener, to an absolute rhythmic progression, of regular recurring units, which is set up unconsciously as a standard for rhythmic comparison. It is a subjective standard, and is rarely made object of conscious thought. But it is nevertheless either felt as existing in a certain related independence to the actual musical progression, or is felt to exist within - that is, to coincide with - the rhythmic relationships of the notes. Coincidence occurs when the rhythmic progression of the music is formed by notes of equal duration, regularly accented; or where, though the durations may vary, the beats occur regularly on notes, without variation or intermission. In the perception of the superficial irregularities which make up the actual rhythmic outline of the music, there is always recognition, either actual or implicit, of such an imagined or implicit regular system of accent as informing the music. Thus when music is played rubato

the strict rhythmic outline is understood as an underlying basis to which the slight variations of time which constitute rubato are implicitly referred. In syncopated music the degree by which the accents of the music vary from the imaginary beats of the underlying strict and regular progression is always directly present to sense. Without this implicit reference such music could not be followed as coherent. It would seem chaotic.

The foregoing paragraph may be summed up as follows:- In perceptual experience of music there is both recognition of strict or regular rhythmic progression, and also recognition of free or varied rhythmic progression. On the recognition, actual or implicit, conscious or unconscious, of the first depends the degree of coherence which the perception of the second possesses. It is only in so far as we implicitly recognise and follow a regular recurrence of accent as either coinciding with the rhythmic outline of music, or as existing behind the rhythmic relationships of music which may be readily referred to this absolute standard, that we are able to follow coherently the free rhythmic development of all music in general. This is simply an instance of the general principle of the recognition of the relation between strict and free form, as applied to the question of rhythmic form in music. True form, to be intelligible, must be grasped through strict form. "The Law of the Union of Strict and True Form is that the exact

relation shall be clearly perceptible through the inexact relation."<sup>(1)</sup> The inexact relation of rhythmic progression is intuitively measured by the mind against the exact relation by which means the amount of divergence is perceived. But should the divergence between what may be thus conveniently described as strict and free rhythmic form be too great, and therefore the inherent relationship between the two be obscured, or cease to exist, then the mind cannot coherently grasp the rhythmic form of the music. The recognition of the coherence of rhythmic progression is based on an intuitive perception of the fundamental coherence of the relationships involved in Strict Form.

To explain the grasp of strict form and the growth of the perception of the rhythmic outline in music which is reached through this; it is necessary to look back and analyse from the beginning our grasp of any rhythmic series as rhythmic. From thence we may see how the grasp of a simple rhythmic series as rhythmic extends into the grasp of the manifold rhythmic complexities of music.

The recognition of a regularly occurring progressive series of stimuli as regular and progressive is instinctive. This "innate faculty for apprehending time is called a sense of rhythm."<sup>(2)</sup> Biologically the response to rhythm can be

(1) Margaret Glyn, The Rhythmic Conception of Music, P.55.

(2) Frank Howes, The Borderland of Music and Psychology, P.89.

traced lower down in the scale of life than the response to the pitch-element in music - i.e. susceptibility to melody or harmony. <sup>(1)</sup> But the human mind does not stop at a bare response to any regular progression of auditory stimuli as periodic. In any experience of an undifferentiated series of stimuli of equal strength and duration the mind instinctively endows the successive units with varying "quality." That is, except in those cases where extraneous factors intervene, the mind superimposes a grouping of twos on such a simple series. This grouping-act of the mind involves the supplying of accent to alternate units of the series. With this supplying of "accent" goes a perception of an alternate rising and falling. The decline to a nadir and corresponding rise to a climax marks the subjective difference of quality with which the mind endows two successive units. Bolton's well-known experiment <sup>(2)</sup> was performed in order to ascertain what the mind did with a series of regular undifferentiated auditory impressions, and to discover what value regular recurring variations in intensity or duration possess for organising any series of sounds so that it could be grasped as a succession of rhythmic units.

It is worth while to quote here the conclusions which Bolton reached, as they serve as a background to the whole

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(1) H. Ribot, The Psychology of the Emotions, P.103 ff.

(2) See the American Journal of Psychology, January 1894.

explanation of the grasp and appreciation of rhythmic outline in music. It was first found that most of the "subjects grouped such an undifferentiated series into organic groups, usually of twos, consisting of a strong accent with weak ones attached to and belonging to it."<sup>(1)</sup> Bolton's general conclusion was as follows - "A given number of auditory impressions within certain time-limits, when presented in such a way that there is a kind of subordination among them with respect either to time, intensity, pitch or quality, or with respect to any two or more of these properties, always stand as a unit in consciousness. They form an organic unity, which is the essential condition of a number of impressions entering into a state of consciousness. If such organic unity does not exist and it is possible to make it, the mind imposes such an arrangement upon a given number of the elements that they may enter into a state of consciousness. The essential condition of forming such a unity among sounds is a regular temporal sequence within the limits (1.0 secs. and 0.1 secs.) and perfect uniformity in intensity, pitch and quality."<sup>(2)</sup>

It was also found that where a series of auditory impressions is objectively organised, the latter may be more easily grasped as rhythmic, and series over a longer time-duration can be grasped as a cognate whole. "Regular variations within

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(1) Ibid.

(2) Ibid.

limits with respect to intensity, pitch or quality, or to any two, or to all of these together, will effect a subordination among them sufficient to constitute an organic unity. There is a temporal limit within which these variations must occur in order to form such a unity . . . In a series of auditory impressions any regular recurrent impression which is different from the rest, subordinates the other impressions to it in such a way that they fall together in groups. If the recurrent difference is one of intensity, the stronger impression comes first in the group and the weaker ones after. If the recurrent difference is one of duration, the longest impression comes last."

The manner in which the ear receives the rhythmic stimuli need not be touched on here, as this question belongs rather to the realm of physiological psychology than to aesthetic psychology. But the effect of the rhythmic element in music is not limited to the ear. Rhythm is a phenomenon "connected with the functioning of the nervous system - being organic and natural."<sup>(1)</sup> Certain bodily adjustments - kinaesthetic activity - accompany rhythmic perception. As Dr. Vernon Lee points out, rhythm divorced from pitch-progression appeals primarily to the body.<sup>(2)</sup> This fact is the explanation of the maddening frenzy which the beating of drums arouses in people of savage races. The rhythm

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(1) H. H. Britan, The Philosophy of Music, P.63

(2) Vernon Lee, Music and Its Lovers, P.129.

seems to act on "the helpless blood direct", or, as Dr. Lee interprets D. H. Lawrence's picturesque description, "on the bodily whole, nerves, viscera, etc., for which 'blood' may be taken as a literary symbol."<sup>(1)</sup> Very often this rhythmic effect on the bodily organism is translated into action. Jigging the foot, nodding the head, waving a fan in time to the music may be all unconscious and spontaneous actions. Another instance of the impulse towards spontaneous bodily movement which music of decided rhythm excites, occurs in the spontaneous dancing to music of very young children or of savages. This is the natural reaction to rhythm of a naïve and unsophisticated nature which has not yet learnt the control demanded by the conventions of civilised life. It is precisely those subjects who are unable to provide the intellectual background necessary to follow sound and rhythm-relationships and so enjoy music at a higher level, who react in this way. The same attitude may be observed in the musician who stifles his preference for good music and enjoys dancing to jazz.<sup>(2)</sup>

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(1) Miss Helen Keller (The World I live in) has described the effect which a drum has on her. "There are tactual vibrations which do not belong to skin-touch. They penetrate the skin, the nerves, the bones, like pain, heat and cold. The beat of a drum smites me through from the chest to the shoulder-blades." P.35.

(2) The phenomenon of feeling internally the rhythm of music without formulating the accompanying notes must also be mentioned. Apropos of this kind of inner rhythmic mimicry it is interesting to note that Miss Margaret Glyn claims that we memorise a melody by mentally recording its rhythmic outline; for when we wish to recall a melody it is the time-outline which first

Footnote Continued.

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emerges into consciousness. (A Rhythmic Conception of Music, P.15). Miss Glyn therefore considers that the rhythmic element in music is the primary and fundamental element. "In a truly rhythmitonal art time-outline must dominate, because it is naturally the most essentially rhythmical and therefore the primary outline." (Ibid, P.43). My own experience runs the opposite to Miss Glyn's statement. I can often recall a melody which persistently eludes me by trying to formulate the pitch-intervals which compose it, regardless of their time-values. I also frequently give myself a kind of mental tag by naming the note-relationships to myself when I note themes in unfamiliar works of music. Once having made the pitch-outline of a theme explicit, either by thinking it in terms of a key, or by sol-fegging it, I am able to recall the theme fairly easily.

The exact nature of the connection between the sense of hearing and the maintenance of bodily equilibrium, the sense of space and distance, and the co-ordination of bodily movements, is still unexplained. It is known that the "cerebellum, that part of the brain which 'appears to be intended for the direct regulation of voluntary movements by sense-impressions', is functionally connected with the organ of hearing. 'The acusticus is precisely the sensory nerve that gives certain objective sense-impressions a specific relation to movement; our movements adapt themselves involuntarily, in a corresponding rhythm, to rhythmical impressions of sound.'"<sup>(1)</sup>

Professor McEwen derives from this statement the following conclusion - that "a series of auditory impressions recurring rhythmically find a response in that part of the bodily organism which regulates movement, and are realised in character and period by the fact that this response is either an actual physical movement, or is accompanied by changes in muscular conditions which stand in consciousness as movements. In other words, the perception of the rate of periodicity in a rhythmical succession, like the perception of pitch, is a realisation of movements induced by sympathetic vibration."<sup>(2)</sup>

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(1) J. B. McEwen, The Thought in Music, P.12.

(2) Ibid. P.13. The perception of pitch is due, as we have seen (Chapter IV, P.11) to sympathetic vibrations induced in the basilar membrane.

Observation of my own experience in listening suggests the following conclusions. First, the perception of the rate of periodicity in a rhythmic succession appears to be the result of unconscious but spontaneous and immediate comparison made between the absolute periodic rate of the music, (= the periodicity of the inner Strict Form, irrespective of the variations of Free Form) and the inner periodic rate of the bodily organism. Just as music is instantly perceived as fast or slow relatively to an inner sense of bodily periodicity (there is also perhaps implicit reference to the normal walking pace as a standard), so the regular duration of successive time-intervals in a rhythmic progression is perceived as being regular according as they correspond relatively or absolutely, to this bodily periodicity which exists in the subject himself. Such sympathetic vibration as that of which Professor McEwen speaks is by no means precluded by the implicit observation of correspondence between the outer and the inner or bodily rhythm. It is the fundamental recognition of periodicity of which he speaks. We may see its external manifestations in those involuntary movements to which I have already referred, and which occur most often when the subject enjoys music at the sensory level on account of its physiological effect.

There is a possible explanation for this translation of the rhythmic movement of music into terms of muscular movement or adjustment. First, it might be explained from the standpoint

of imitation and of self-individuation. There is a desire to take part oneself in the actual rhythmic movement of the music by responding physically. We attempt to express the music within ourselves; to identify ourselves in a crude way, with the music, by thus jiggging the foot or even by less apparent muscular adjustments. These latter are possibly the underlying principle of all our perception of rhythm.

But regular "jiggging" etc., is often an identification of the self with strict rhythmic form in order that the subject may recognise the amount by which the free rhythmic form of the music varies from the inherent strict form. This is a less likely explanation, however; for those subjects most prone to jiggging do it automatically and unconsciously, and not, as a musician would do it, in order to help himself to grasp a difficult rhythm. (1)

"Jiggging" in time to music occurs most often among ordinary listeners when inferior music is being performed. Of some dance music it may be truly said "One listens to it on the toes." Such spontaneous movements as jiggging and also the tendencies to movement, restrained or controlled in the serious listener, clearly reveal the intimate connection of music with dancing. In many subjects dancing forms the instinctive response to music. Such a response is mainly due to the physiological

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(1) In passages where a particular instrument may have to mark the off-beats with a repeated note, it may be found less difficult to mark the rhythm if the true beats are emphasised by the body.

effects of music; and, except in the controlled dances of the higher types, possesses little of the coherence and beauty which distinguish dancing as a formal art. That dancing is nearly always accompanied by music of an inferior type is another indication that when music invites movement most insistently, it does so because of physiological and not musical effects. Such music is therefore less likely to induce the most valuable kind of musical listening. It must also be acknowledged that the pleasure which we take in "regularity of movement and in the recurrence of systematic periods, in anything that is in motion" can be "independent of music."<sup>(1)</sup>

Throughout all my own introspective experience of rhythm in music I found that, when I am truly listening, such sympathetically induced movements or tendencies to movement which I have discussed above, are controlled or inhibited by the discipline necessary to the grasping of the logic of musical relationship. It is well to remember what I have stressed elsewhere - that just as the attitude of "thorough-paced listening" is a progress from a sensory response to a response at a higher level, so the perception of the rhythmic element in music is a mental and not merely a physiological activity. In music "it is inadequate to regard rhythm merely as a property of neural sensibility and activity: its effect upon consciousness is the crucial point of the matter . . . The natural

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(1) W. Pole, The Philosophy of Music, Pp. 167, 168.

instinctive effect of rhythm is an emotional modification of consciousness . . . But any examination of rhythm must include a consideration of its more definitely intellectual character and relationship, as indicated by its mathematical foundations and exactitude."<sup>(1)</sup>

It is accordingly necessary to examine from the intellectual standpoint the nature of our grasp of rhythm in musical listening. I have already shown that the perception of pitch-relationship is an experience founded on an intellectual basis. There is a corresponding intellectual basis to our perception of rhythmic relationship in music. From this aspect music may be considered to consist of relationships involving the perception of notes or pitch-points as possessing relative duration and emphasis, or accent. That is, in musical listening there is a recognition of a rhythmic succession of units in time, as being articulated by an inherent, or by a subjectively superimposed, regular accent, to which in the former case they conform, or from which in the latter case, they depart. The grasp of rhythm in music involves a grasp of time-relationship. Time-relationships include all rhythms, simple and complex, as well as the internally unified groups of varying time-elements which combine to make up the embracing rhythmic unity of the music. Any succession of time-units is felt as progressive in time; each unit therefore possesses value through its position, as part of that succession, and

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(1) Brian Wibberley, Music and Religion, Pp. 207, 208.

also as being in itself of a certain measure of duration. These successive units are, in music, organised into a logical time-system by the occurrence of accent. Accent, however, as we have seen, need not always be experienced as an objective factor, but may be supplied subjectively, as it were, as in our experience of syncopated passages or two-bar rests.

The internally related and stable units in time-relationship are also related to a wider system or unity of time-relationships. The unit of time-relationship is thus subordinate to this higher unity, with regard to which it becomes an unstable element in the rhythmical development of a complete musical work. We shall see later how the unit, the beat, forms part, first of a larger unit, the bar; and then how the bar extends into the phrase; the phrase into the sentence, the sentence into the paragraph, and so on, until the end is reached. Thus the complete work of music is made up of units which are continually being raised to a higher power as the grasp is extended to include what were originally experienced as single units in their more complex relationship of parts of a whole.

The following statements regarding the perception of rhythmic progressions may serve to clear the ground as a preliminary to a more detailed investigation. An undifferentiated periodic series is only perceived as rhythmic when certain laws are complied with. First, the subject must attend actively to it. <sup>(1)</sup>

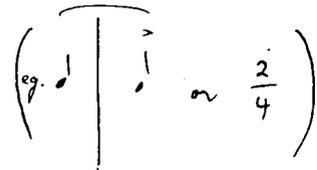
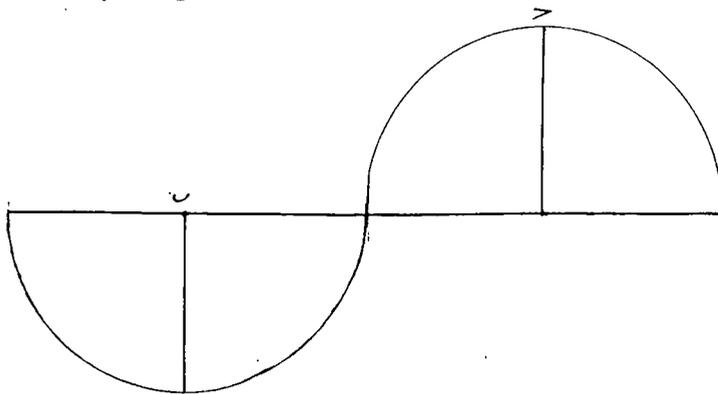
(1) Bolton's experiment is only practicable when the subject attends actively to the stimuli.



This feeling of accent thus subjectively experienced occurs at the renewal of the act of attention. It is most common for the groupings so formed to occur spontaneously in twos. Where groups of higher numbers, such as threes or fives, are formulated, it is found that these are made as the result of definitely willing the attention. The mind thinks the successive stimuli into groups of threes or fives etc. The feeling of regular accent which thus changes an undifferentiated series of sounds into a rhythmic progression is therefore the result of an act of comparison. The realisation of the primary periodic succession of auditive stimuli is intuitively compared with the secondary progression in twos and threes subjectively conceived. But in the experience of music it is never a case of an undifferentiated series of units. Accent or varying intensity is always objectively present; while the elements in which rhythm is embodied may also vary infinitely in duration. The accent that is objectively present in music has the effect of compelling the renewal of the act of attention to take place at objectively determined intervals. This objective accent, while generally understood as stress, which as such imparts a relatively greater intensity to the note on which it occurs, may also be modified by the respective durations of notes.

The grouping of a regular series into twos is the normal and primary way of reacting to any such succession of stimuli.

Let us therefore first examine the nature of this grasp of the two-unit group. Each successive pair is grasped as a single entity composed of two elements. These two elements are felt as complementary and contrasted. One single element is felt as relatively unstable and as needing to progress to a second element, equal to it in quantity, but opposite in quality, in order that stability may be achieved. Attention therefore progresses from one unstable element to another; and finds a certain balance in the complex grasp of two elements similar, yet contrasted. The progress of attention may be compared with the swing of a pendulum; and can be graphically expressed thus: (1)



The swing is from the lesser to the greater; from the unaccented to the accented. The two units are equal in quantity (duration), but opposed in direction or quality (stress value). Rhythm in European music has been limited to the simplest combinations; the neglect of more complex rhythms being the

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(1) J. B. McEwen, The Thought in Music, P.16

result of the concentration throughout the history of modern European music on the development of harmonic relationships, and, more recently, on experiments in textural combinations. This preoccupation with "tone" and its aspects rather than with rhythm may be readily understood when the vocal origin of modern music is taken into account. Among other examples, the music of Bach is mainly written in a style the beauty of which depends pre-eminently on the pitch-interest, and where there is little rhythmic variety. Most contrapuntal music, because of its vocal origin, subordinates rhythmic interest to pitch-interest. Moreover, the long sweep of many later works written in such time-signatures as  $\frac{12}{4}$ ,  $\frac{6}{4}$  etc., means that here also rhythmic interest is at a minimum. <sup>(1)</sup> In general, the elements composing the rhythmic unit (the bar) of European music, are either of equal time-value, or are balanced in the proportions of the simplest ratios; e.g. 1:2, 1:3, 1:5 etc. <sup>(2)</sup>

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- (1) cf. Some of the slow movements of Beethoven sonatas. The long line of the pitch-outline recalls the rhetorical sweep of the voice.
- (2) Though Professor McEwen states that "Rhythm in modern music is still a matter of simple relations between the durations of successively occurring periods" (this was written in 1912.) (The Thought in Music. P.17). since the beginning of the twentieth century there has been a tendency not only towards developing new complexities of rhythm, but also towards disregarding the old standards of time and accent. Music has "freed itself, for better or worse, from the trammels of metre. Measure of course remains, for a conductor still has to beat time, or the players could not keep together. But the accents and stress of the musical

Footnote Continued.

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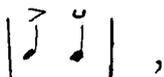
phrase are continually falling across the bar, so to speak; they no longer coincide with what were formally known as 'strong' beats, which now have scarcely any accentual significance." (Outline of Modern Knowledge. P.1041). Nevertheless there must always remain the recognition of that fundamental standard of Strict Form, which is understood as the basis of all rhythmic variation, and to which unconscious reference is made in our grasp of all rhythmic complexities. This inherent feeling for rhythmic movement, or Strict Form, exists as an unconscious standard behind our grasp of the varying rhythmic relationships of music. This is the explanation of the coherence of "rubato". Rubato represents a departing from Strict Form, but never so as to lose sight of the fundamental regular rhythm underlying the rubato.

In the perception or grasp of the simple rhythmic unit composed of two equal but contrasted elements, there is felt a rising to a climax and a falling away from that climax. This simple grasp of the rhythmic unit is raised to a more complex grasp in "thorough-paced" listening. In following music this single rhythmic unit, though felt as internally stable, nevertheless demands another unit, similar to it in structure, to balance it. Thus two units, each stable in itself, but relatively unstable, combine to form a larger and more complex unity, which is grasped as a unity, and which is felt as stable in itself.<sup>(1)</sup> Throughout true musical listening there is this constant raising of unities to a higher power, relative to which they no longer are felt as satisfying separate entities. A larger degree of organisation is thus imposed on the first organising of primary elements into simple unities. As the musical work develops, the mind is able to take this more complex grasp in its stride, and according as this higher unit is still felt as unstable, there continues the need for it to be balanced still further by proceeding to another group or secondary unity. Thus the grasp of rhythmic relationship (pricked on by the instability of the tonal relationships as well) becomes more and more complex until a point is reached where no more instability is felt to

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(1) cf. the extension of pitch-perception, vide Chapter IV.

exist. The desire to push on to more complex systems of groupings of internally balanced units is then satisfied, and thus ceases with the end of the music.

In music the first simple element in a regular rhythmic series is called the beat. The first simple unit (or internally stable unity) is called the bar. Though for convenience we write the bar , in reality we experience it thus: .

The rate at which accented beats succeed one another is called the tempo. There is probably a mean tempo which is nearly the same for every subject. This tempo coincides with the rhythm or periodicity which characterises bodily movements, like the normal walking-pace and the heart-beat, as well as being possibly affected by other muscular adjustments and cathartic reactions of which we are unconscious. (1)

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- (1) A rate of tempo is chosen by the composer for a particular work, fast or slow, in sympathy with the tempo in which the music first took possession of his mind. This tempo is felt as existing within his normal inner tempo. Fast and slow are purely relative terms. Music is felt as such according to whether its pace corresponds in greater or less degree to the inner periodicity of the bodily organism.

Tempo, however, remains to some extent relative to pitch-outline. Ordinarily the more notes in the bar, the slower the tempo. Few notes usually mean quick tempo. See the Scherzo of Beethoven's Ninth Symphony. Here the bar becomes the beat, the four-bar phrase becomes the unit. Each bar contains only three notes.

On the other hand, when a great number of notes are grouped into a single beat (see some of Beethoven's slow movements) the tendency is for the mind to split up the bar into smaller units.

The progression of the bar to the larger and more complex organisation, the two-bar phrase, demands an extended and more complex grasp, while still remaining an immediate or direct experience of a unity. The grasp of higher and more complex unities, however, is no longer a matter of immediate perception. Memory activity must be called upon. The grasp of the phrase as being musically significant and coherent extends to the grasp of the musical sentence, of which all the constituent elements remain in suspension until the cadence is reached. At the cadence, by an act of retrospection the whole musical structure as it progresses from the first simple unit, the bar, through other embracing and extending unities to the musical sentence is summed up in this final act. Further development from the sentence to the paragraph, and thence to the complete work or movement, means an extended and complex grasp which brings all the parts into unity and harmony. Thus to follow coherently the extended rhythmic development of a work of music demands the power of comparing, contrasting, organising and synthesising of parts as reconciling contrasted elements which is only possible to the trained musical perception. Memory, sustained and active attention, as well as this intellectual power of synthesising the significance of the parts as developing musical "thought", are all necessary to the experience of music as a formal unity.

Like the perception of extended pitch-relationships (with

which, of course, extended rhythmic relationship is allied and which pricks on interest in rhythmic development) the progressive grasp of rhythmic relationship (or time-outline) in music comprises a series of expectations partially satisfied and excited again until the end brings final satisfaction. The first inherently unstable element brings the promise that another is to follow in order to balance the first. Expectation is thus definite, since the form or shape of what is to follow may be predicted from the nature of the first unit. As rhythmic unit succeeds rhythmic unit, each in turn fulfils expectation, since it completes, or helps to complete, a larger unity; and at the same time it joins with the preceding units to invite further movement to complete a more complex unity. Thus expectation becomes increasingly complex and definite as the extending unities grow in complexity in their progression to a final stability. Final stability arrives when all internal or smaller unities are felt to be perfectly balanced and thus form the complete unity of the perfect musical work.

Strictly speaking, the extent of a single act of perception is limited to the grasp of the few notes or rhythmic stimuli which can be immediately realised as connected. The scope of the span of consciousness may, however, be found to vary within fairly wide limits, depending chiefly on native capacity and the degree to which this has been trained to function efficiently. The untrained mind may perceive the internal stability

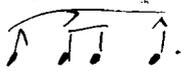
of a single phrase only; the skilled musician may be able to extend his grasp to embrace the coherence of the complete musical sentence.

The nature of the rhythmic-outline or the pitch-outline of the music may affect the ease with which the listener can directly grasp rhythmic relationships. For example, the pitch-outline may tend to avoid the stability which derives from a too emphatic use of the dominant to tonic progression, by employing other more elusive and less conclusive harmonies. This will militate against the stability of the rhythmic outline by prolonging the suspense of the melodic or harmonic interest. According as the cadence at the end of a phrase, a sentence or a paragraph emphasises the stability or the instability of the pitch-outline; that is, according as it is perfect, imperfect or interrupted, masculine or feminine, direct, or indirect (resolved by means of a suspension, for example) so will expectation be satisfied or intensified.

That this extended perceptual grasp is accompanied by expectation of increasing definiteness is shown by the fact that as the grasp becomes more and more complex, the goal to which the music is tending becomes clearer and more obvious. The attentive listener can almost foretell the direction the rhythmic outline must take from his knowledge of what has already occurred.

Take again the ballad "Barbara Allen", which we considered

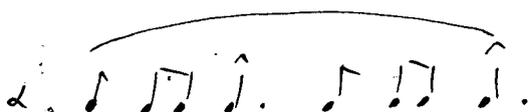
from the aspect of pitch-relationship. The first rhythmic

unit (a) .

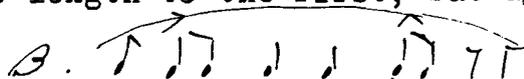
is felt to rise to a rhythmic climax and requires to be balanced by the complementary unit

(b) .

of equal duration, and similar in time-outline to the first, but opposite in quality; as the first tended upwards, and this tends downwards. Thus the first internally stable phrase

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arouses expectation and satisfies it. The structure is still simple, however; and is relatively unstable to what follows; for it tends to expand naturally into a second phrase similar in the length to the first, but again opposite in quality.

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Note how this second phrase grows rhythmically (as well as melodically - See Chapter V) out of the first phrase. Notice also that the first three notes of (B) possess the same time-value as those in (A). Only a very slight variation is needed to give the right fillip of difference to the time-outline of (B). This variation prevents the monotony of exact repetition; but the phrase resembles the first sufficiently to please by its similarity. Phrase B is interrogatory; phrase A was assertive; therefore they are felt as contrasted. Phrase B now demands another phrase to balance it; its question must

be answered. <sup>(1)</sup> A new sentence containing two phrases  $\gamma$  and  $\pi$ , of which  $\gamma$  is the answer to  $\beta$ , completes the whole of the first sentence ( $\alpha + \beta$ ).



The time-outlines of  $\gamma$  and  $\pi$  are similar to those of  $\alpha$  and  $\beta$ ,  $\gamma$  corresponding to  $\alpha$ , and  $\pi$  to  $\beta$ .

The time-outline of the whole tune is thus exceedingly well-knit. The same simple rhythmic pattern, slightly varied in each case, is common to each of the four phrases which constitute the complete melody. These variations, though only slight, are sufficient to prevent monotony. It is necessary again to emphasise the fact that all musical listening includes the two aspects of time-outline and pitch-outline in their closely knit union; though often the interest in the one may be subordinated to the interest in the other, and vice versa. There is also a never-failing source of variation and a stimulus to renewed interest in the dynamics and textural elements of music. <sup>(2)</sup>

The definiteness of the expectation as to the development of time-outline in music lies not so much in a fore-knowledge of the details of the ensuing rhythmic development, but rather

(1) Terms like "interrogatory" and "assertive" are also relative to time-outline or rhythmic-relationship as associated or fused with pitch-outline, or note-relationship. In actual examples it is impossible to dissociate the two. In the above example the instability of the time-outline is maintained by the pitch-outline. In phrase  $\beta$  the pitch outline rises upwards from the tonal centre.

(2) See Chapter VII

in a realisation of the direction which the time-outline will take, and the scope or extent needed to bring it to a satisfactory conclusion. For example, the first two bars of "Barbara Allen" lead us definitely to expect another two bars, although their exact nature can only be conjectured. This is our experience at the first time of hearing; at a second hearing, expectation as to the nature of the details may be clearly formed.

Where music is novel, much depends, as in the case of pitch-relationship, on the subject's musical background. Should he follow a movement in sonata-form, he will soon recognise that the formal outline of the music consists of the balance, interplay, development and recapitulation of certain subjects. He will therefore anticipate the reappearance of a main subject in the recapitulation; and the subsequent hammering home of the coda, for example. Similarly he can follow with some certainty the music written in rondo form. Where his musical experience is profound he can even gauge the length of the constituent parts. He will anticipate when one section will end, and gather from the length of one part the length and nature of the part needed to balance it. These predictions are of course aided by following the pitch-outline. Modulations to a contrasted key may indicate the approach of a contrasting section and so on. (1)

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(1) Miss Margaret Glyn emphasises the point "that all important pitch-effects (such as cadences, suspensions, and any pronounced discord or change of key) should

Footnote continued.

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occur at these regular intervals (in the time-outline), and the natural tendency of pitch-outline is thus inevitably towards monotony of time-division, a typical instance of which is the modern hymn-tune." (The Rhythmic Conception of Music. P.42)

Compare the interest of Bach's pitch-outline with the lack of development of his time-outline. See P. 160

In true musical listening this grasp of the coherence of time-outline is just as important as the grasp of the logic of pitch-outline. The progression from bar to bar, from phrase to phrase, and from sentence to the complete musical paragraph must be grasped as logical in order that the listener may enjoy the significance and the beauty of the music as a whole.

The general conclusions as to the perception of rhythmic relationship in music may be summed up as follows: When the time-outline of music is actively followed expectation remains unsatisfied as long as the time-outline is felt to be unstable. So long as there is felt a demand for further movement in order to complete the musical meaning and restore the balance of parts, expectation continues unsatisfied. When the tendency to movement ceases, and the internal stability increases to such an extent that no further movement is desired, expectation is finally satisfied. The grasp of the internal stability of the parts includes a developing realisation of their external instability which gradually changes towards stability. This is finally achieved when all the parts are reconciled as forming a single stable whole.

The internal stability of the rhythmic unit, the bar, can be directly apprehended. The larger unity, the phrase, can also be directly apprehended as internally stable. The extension of the grasp of the phrase to the grasp of the sentence is, except in special cases, no longer a case of immediate

perception. The summing up of the sentence demands an act of retrospective consideration. Elements in themselves complex and stable are synthesised into a larger unity. The mind can only grasp the coherence of such extended unities by analysis and synthesis through the memory.

In the trained musician the grasp of time-outline becomes so clear and definite that the omission of any part, perhaps only a single bar, one of many similar bars, destroys the continuity of effect, and distorts the balance of the work as a formal masterpiece. "If we lose our grasp of the time-beat and the equal note-division, we lose our intuitive perception of the music."<sup>(1)</sup> This illustrates the necessity of interpreting the rhythmic (or formal) development of music through the medium of the laws of Strict and Free Form. Free Form can only be understood as coherent in so far as the exact degree of its departure from Strict Form can be followed. To the attentive listener the relationship between Strict and Free Form must always be apparent if he is to get real aesthetic enjoyment from the balance and proportion of the work of music developing before him.

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(1) Margaret Glyn, The Rhythmic Conception of Music, P.66.

CHAPTER VI.

THE DYNAMIC ELEMENTS OF MUSIC:  
INTENSITY, TIMBRE AND TEXTURE.

CHAPTER VI.THE DYNAMIC ELEMENTS OF MUSIC: INTENSITY, TIMBRE AND TEXTURE.

Although the perception of the relationships which make up the time-outline and the pitch-outline of music is vital to true musical listening a full appreciation of the perfect aesthetic musical whole also involves the perception of variation and fluctuation in the dynamic elements. These include intensity - which comprises all gradations of softness and loudness of tone, crescendos and diminuendos, and those varying degrees of emphasis like "accent," and the different kinds of touch like "staccato" and "legato" - ; timbre, or tone-colour, sometimes called "clang"; and texture, which may be described as the system of timbres, or instrumental colourings, in music written for several instruments.

It is important to recognise that thorough-paced musical listening does not only involve following the relationships of tones in their simultaneous progression in pitch and time; it is equally necessary to hear and follow their changes as regards the above aspects. The recognition of the changes in dynamism throughout a work of music is perhaps of less fundamental importance to our understanding of the music than the recognition of the formal relationships of pitch and rhythm; nevertheless without it the musical experience would be very nearly akin to the following of the symbols in a mathematical problem. It is the intensity and quality of notes which give

them their vitality in music, just as it is exquisite and subtle phrasing which gives life and significance to a melody, or logical sequence of notes.

It is perhaps more apt to speak of "variation" in dynamism rather than to use the term "relationship", for variations in the dynamic elements are far less arbitrary than the variation of notes in pitch and time. These latter elements must always conform, within very narrow limits, to the standards laid down by the composer and further ratified by tradition and the resources of instruments. But there is no absolute standard to which the dynamic elements must conform.

The importance of the dynamic elements in music has not been stressed in any study of musical aesthetics, nor except very sketchily, have they received much attention in psychological studies of the experience of listening to music.<sup>(1)</sup> That these elements are an integral part of any work of music heard in actual performance it is needless to affirm. We might even go further and suggest that such dynamic considerations are present even when the composer frames his musical idea in his

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(1) In his essay on "Types of Musical Listeners" in The Effects of Music (Edited by Max Schoen) Otto Ortmann describes some of the experiments made to determine the absolute value of variations in intensity and duration of piano-tones on children. But such experiments do not help much in the consideration of the variation of these elements as they occur relative to a work of music.

head. He does not, for example, conceive a musical idea, and then look round for an instrumental timbre in order to express it in actuality. The musical idea occurs already clad in a particular timbre or tone. The musician does not say "I am going to give that idea to the trumpet, and that to the fiddle," as though the two ideas were interchangeable in timbre. Each musical theme carries its timbre implicit in its initial conception. When the gifted musician silently considers a musical score, though he doubtless contents himself with a very brief recognition of the dynamic possibilities of the notes and their textural treatment, some realisation of the effect of these is always present in his imagination. In the case of the composer and the score-reader the dynamics of the music cannot strike the brain with real physical violence as they do in an actual performance; nevertheless they are not entirely discounted, but are either heard in imagination, in the light of past experience, or are heard implicitly as being vital to the expression of the music.

In actual listening to the discussion of which I have mainly confined myself, the forceful presence of the dynamic elements of music cannot be discounted. They affect the genuine listener without his being able to help himself. The mellow and voluptuous notes of the violoncello played in the upper register are felt to be in luscious contrast to the thin, sexless notes of the violin, in a string quartet, for example. The nasal tone of the viola is in turn strongly

differentiated from the other three instruments. The exquisitely subtle way in which a pianist works his tone up from the slenderest pianissimo to a fortissimo climax and back again to a normal tone, is duly followed and appreciated by the artistic listener. The bare recognition, at the sensory level, of the sudden sforzando that inadvertently recalls our wandering attention, <sup>(1)</sup> should not be confused, however, with those cases where the attentive listener follows with his highly developed perceptive powers the artistically handled and developed dynamism of a Beethoven Sonata like that in C minor opus 111. The perception of infinite gradations in shading of intensity and tone, as well of the perception of variations (not haphazard, but logically directed to a certain artistic aim) in emphasis, timbre and texture, is essential to the perfect following of music. For music should be enjoyed as a living art, and not as a barren combination of notes. Moreover the dynamic effects themselves help to make clear the formal relationships by emphasising certain effects and passing over others as less important. Notice how much more forceful is a discord on an accented beat, than on an unaccented beat.

Numerous musical examples could be appended to show how prominently these dynamic qualities enforce themselves on our

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(1) cf. Haydn's "Surprise Symphony."

attention as being necessary to the artistic development. In many cases certain dynamic devices require much more than a bare recognition of their presence in order that their inclusion for an artistic end be understood. For example, the whole musical significance of a work like Ravel's "Boléro", for full orchestra, would be lost, if the infinite variety and development of intensity and timbre were not carefully followed. This work is a study in intensities and orchestral textures. The whole interest of the piece lies in the way in which it works up gradually to a tremendous crescendo by the addition, one after another, of more and more instruments. It begins with a theme, pianissimo, on a solo flute, against a muffled tattoo on the side-drum. Different instruments take up the theme, first singly, and then in groups, until finally the flutes, trumpets, saxophones and violins blare out the theme against the impressive tattoo of all the percussion, woodwind, horns, trombones, tuba, harps, and the rest of the strings, and the orchestra heaves tumultuously to a frenzied close. Without this development in dynamic treatment the theme, though long and fairly complex in itself, would soon cease to have aesthetic interest for the listener. The intricate tattoo which runs with increasing vigour throughout the piece, is also tricky; but it may be mastered at a single hearing. The comparative barrenness of pitch and time outline, the first of which recurs again and again with only the slightest modification, is compensated for in this way by a dynamic

treatment which serves to sustain the listener's interest throughout ( I speak from personal experience), the entire first hearing. Obviously if the listener does not actively follow these changes in treatment he is not coming at all near the original conception of the composer, as it is interpreted by conductor and orchestra. Following this work by score would give the subject an approximate idea of the treatment of this work, but his experience would be ever so much less impressive. The appreciation of the aesthetic importance of the dynamic treatment of this work is not only a matter for the understanding, as would be the case were the music known only from score. Once heard, these effects could be imagined with a certain degree of faithfulness. Even so, the dominating power over the sense - over the whole physical aspect of the body - which these dynamic effects possess when actually heard could never be adequately experienced by a silent hearing. In actual hearing the listener cannot escape from the progressive perception of these changing dynamics. We cannot shut our ears to sound although, it is true, after a certain time our ears can become indifferent to noise. But in such a case as this, the listener does not try to reduce the music to an undifferentiated background of sound. If he listens attentively, he is forced to follow the changes from soft to loud and loud to soft. If he is listening attentively, a certain degree of aesthetic pleasure accompanies his recognition of the

artistry by means of which the theme is varied and illumined by its dynamic treatment. Such aesthetic pleasure reinforces the aesthetic pleasure he receives from following and understanding the note-relationships and the intricacy of the rhythmic outline. But this aesthetic pleasure must not be confused with the pleasure which is directly derived from these attributes of music experienced absolutely. The sensory response to the dynamic, melodic and rhythmic qualities of music is also pleasurable, and such sensory pleasure may even be present in the experience at a higher level; but it is to be distinguished from the enjoyment of these effects heard relatively to their musical context. Because, however, the dominance of these effects is so overwhelming in actual reality, the fact that they can be appreciated as relative to the musical whole does not prevent frequent repetitions of such works as the example quoted from bringing satiety, as occurred in my own case. Dynamic variation is so easily followed that the listener loses interest when the novelty has worn off. Moreover, repeated hearings of such "dynamic" music are likely to rob the experience of any aesthetic value which it may have possessed in the first place. Very often, as in my further experience of Ravel's "Boléro", a cruder kind of physiological pleasure in the sensuous and rhythmic effects is substituted for the original aesthetic enjoyment.

It cannot be denied that the dynamic elements of music are of far less importance to the unity of the art work than

the elements of pitch-and-time-relationship.<sup>(1)</sup> Variations in dynamism can be too easily grasped, and their aesthetic intention can be too easily understood for music in which dynamic treatment is the most important factor to remain of lasting interest. Music requires other qualities of greater complexity which can only be grasped by a more concentrated effort for it to satisfy aesthetically.

Yet the part played in music by the dynamic elements, though small, must not be ignored. Dynamic treatment of time-and-pitch-relations frequently helps to make the latter intelligible, besides giving to the music warmth and vividness.

Notice, for example, how often the climax of the pitch-outline on music corresponds with the climax of the force-outline (= the dynamic climax). A work starts from a "mean" of pitch sounded with a "mean" of intensity. As the pitch rises or falls, that is, as the pitch-outline proceeds in a contrasting direction from the initial point, there is a corresponding change in the force-outline. When the pitch-outline returns again to the normal, usually the key-note or a note closely related to the key-note, there is a corresponding return of the force-outline to the normal intensity. (Normal intensity would be mp, or mf.)

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(1) Yet their development in recent years, as shown in the advances of orchestration since Berlioz and Wagner, bring them to a fair level of importance.

Force-outline signifies the progressive variation in loudness and softness (i.e. intensity) of any work of music. Usually it cannot occur without changes in tone-quality (or timbre) as well. Except in the case of the repetition of a single note (e.g. in a monotone) with varying degrees of intensity, change in timbre cannot be excluded. (Even in this case it is doubtful whether the timbre would continue unchanged.) Each note on the piano, for example, differs slightly in timbre from its neighbour, while the extreme of bass and treble differ more considerably. This holds with other instruments, like the clarinet, and the voice, both of which possess several registers. The several strings of the violin, etc., also possess distinguishable tone-qualities. <sup>(1)</sup>

All music, therefore, changes in timbre as it passes from note to note. There is also present, besides this natural variation, a variation of timbre superimposed by the player. The whole art of phrasing depends on a nice balance of varying intensity, and on subtle changes in tone-colour. Most "expression-marks" can be reduced to terms of intensity and, to a lesser degree, of timbre. For example, "cantabile" implies notes of a medium intensity played smoothly and with the richest tone that can be commanded. Variation in timbre often

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(1) It would be more convenient to distinguish "tone-quality" from "timbre". The former could refer to the changes of quality in a single instrument; the latter to the difference in quality of distinct types of instruments.

depends on variation of touch, which is itself dynamic or percussive. Such "touches" as "staccato" or "legato", which are used to give additional variety to musical material depend on variation in duration, and to a slight extent, intensity. The final effect is achieved by varying the method in which the note is struck. Thus, a quick abrupt touch gives "staccato"; a smooth sustained touch gives "legato", and a slow "clinging" touch will give "sostenuto" or a "cantabile" touch. The perception of the variation in the dynamic-outline (change in timbre and in intensity) is necessary to the perfect following of any work of music. In many theme and variation movements, for example, artistic contrast may depend a great deal on the effective dynamic treatment of similar passages. In the phrasing of a musical passage, which is the performer's method of rendering it clearly apprehensible by the listener, balance and contrast of intensity and tone-colour are combined with emphasis of rhythmic outline. Phrasing, which in some respects resembles the rising and falling of the voice, as in reading aloud, consists in making apparent the inner unity of a particular group of notes by clearly revealing their connections by means of subtle gradations of tone and by subtle emphasis of their rhythmic outline. Such note-grouping immediately enables the listener to follow the musical meaning, in exactly the same way as proper emphasis and intonation in

delivery makes a piece of prose or poetry intelligible when read aloud.

Is there a particular standard to which the dynamic outline must conform, in the same way as the pitch-outline and the rhythmic-outline conform to certain fundamental aesthetic principles of balance, contrast and unity? These standards of pitch and time-outline have been described in the earlier chapters of this work. The fundamental principle of coherence of pitch-outline "consists in a departure from, and a return to, the tonic,"<sup>(1)</sup> which in complex musical development expands into a departure from a key-centre to a modulative key, and a return to that key-centre. This is the principle of key-stability, and may be described as a circular rhythmic (in a general sense) activity. The standard of time-or rhythmic-outline is less easy to formulate, as it consists of a pulsative rhythm, and depends for its coherence to a large extent on the accompanying pitch-outline. Its stability depends on the limit to which the span of attention can be carried, with the additional prolongation of this by means of memory-activity. Thus several internally stable but externally unstable units may be synthesised into a single coherent whole of which the stability is so complete that all further tendency to movement is eliminated.

What is the essential nature of the relationships which

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(1) Margaret Glyn, The Rhythmic Conception of Music, P.68.

these variations in dynamism make up, and is there a fundamental unity of dynamic-outline in which they are fundamentally united? What is the standard of Intensity, for example, and what the standard of Quality?

The force-outline of a work of music is not a simple progression from a loud to a soft, or from a soft to a loud. Nor is it always a progression from a mean of tone to either of the extremes of loud or soft, and back to normal again. Countless works of music begin soft and end loud, or vice versa, or start at the mean and return to the mean. There is no definite broad rhythm of force-line, except in so far as it follows and emphasises the rise and fall of the pitch-outline. Yet a certain regular rise and fall in the force-outline is clearly apparent in all music. There are a succession of effects of contrast and relief, mounting higher and higher until a climax is reached. No music continues from beginning to end in an invarying dynamic texture.

It has also been noted that where the pitch-outline rises to its climax there is this corresponding rise in the force-outline. It may be marked by a gathering crescendo ending in a striking fortissimo effect; or the climax of the pitch-outline may, on the contrary, be marked by a sudden depression in the force-outline. Note, for example, the sudden pianissimo which marks a pitch or harmonic or rhythmic (or all three) climax in certain works of Bach interpreted by modern musicians

(notably the overture to the Suite in D ma., for strings, oboe and trumpets.)

It is interesting to observe this same instinct for a climax in the gabbling repetition by children of poetry which sometimes they may not even understand. When repeating, parrot-fashion, a four-lined ballad stanza, children frequently tend to raise the pitch of the voice and heighten the emphasis of delivery until a climax is reached in the third line. Then there comes a lowering of voice for an unemphatic and comparatively toneless delivery of the last line. In many cases such a rendering of the verse does not fit in with the sense of the words; yet it is not to be condemned entirely as inartistic, for it seems, to my mind, to indicate a natural appreciation of the musical or purely formal qualities of poetry. This feeling for contrast and relief, and this feeling for the value of climax seems to reveal an instinct for absolute form latent in the child. Even in this example, however, it is impossible to separate force-outline from pitch-outline. In music these two are so closely associated that it is not too much to say that force-outline is dependent on pitch-outline. This point I shall follow up later. Let us now turn to the interest in force-outline which occurs in musical listening.

Interest in force-outline may first of all be complicated by interest in the absolute value of intensity. There is often a feeling of pleasure in volume for its own sake, particularly

among uncultured subjects.<sup>(1)</sup> Certain degrees of intensity are physically stimulating or soothing. From the results of certain experiments made on children, it was found that notes played with a medium intensity on a grand piano were generally more pleasing than the extremes of loud and soft, as being less difficult to apprehend.<sup>(2)</sup>

But interest in force-outline may also be modified by the effect of association implicit in certain sound-effects. Notes played softly are associated with peace, calm, rest, or even death. Loud notes recall the hurly-burly of life, or the tumults of nature's forces, such as storms, whirlwinds, waves, and so on. Such associative value, however, is usually the result of a combination of musical factors of which intensity is only one. Duration, and the use of conjunct or disjunct motion in pitch-progression help to evoke similar associative meanings.

In most cases of true listening the force-outline is usually followed and enjoyed in its relation to the total artistic effect of the music. This is the most important of all the aspects of interest in intensity. There is interest, satisfaction and pleasure in perceiving how admirably certain dynamic effects are used to infuse a vital meaning into the music. The dynamic treatment of note-relationship gives it

- (1) Berlioz was an exception. He delighted in huge massed effects. Both Mozart and Chopin, on the other hand, showed exquisite sensibility in their dislike of harsh sounds.
- (2) Otto Ortmann, "Types of Listeners"; in The Effects of Music, edited by Max Schoen, P.44.

the semblance of a living and pulsating creation. We often feel how the volume of tone increases as the emotional intensity of the music waxes, as the notes mount to a climax. Or we feel with pleasure how subtly the pitch-movement is emphasised by a resonant treatment. In listening to contrapuntal music, for example, we are able to separate, follow, and combine again in a single act, several highly organised parts by noting their relative force-outlines. We note that quick-moving parts, especially if in an upper voice, require less resonance to make them stand out, while a lower part, composed of long, sustained notes, requires an additional degree of intensity to sustain its coherence of pitch-outline against the other parts. Here is a harmony of intensities quite as well-defined as the harmony of pitch. The relative loudnesses and softnesses are grasped and followed, each with the pitch-outline it supports; and these several force-outlines fuse in a single total impression just as the several threads of melody are followed and fused in the total grasp of the whole work in its aspect of a complex work of music. This is the highest degree to which the perception of variation in intensity (or force-outline) can be brought.

But listening to the complexity of parts of a work performed by a full orchestra involves more than a perception of pitch and time-outlines, animated by a force-outline. There must also be perception of variation in timbre and texture,

as we have seen in the case of Ravel's "Boléro".

The tone or timbre produced by any instrument depends on the number and the nature of the distribution of the overtones produced by that instrument when it is struck, blown or vibrated in any other manner. Thus the resonance-powers of different instruments may vary widely. Generally speaking, those overtones (or partial tones) which first succeed the fundamental note - the lower partials - are louder than the upper partials. Accordingly those instruments in the tone of which the lower partials predominate give a louder tone than those instruments in the tone of which the upper partials are more numerous. Flutes are softer, then, than clarinets; and clarinets are softer than trombones.

The term "timbre" therefore describes the individuality of an "instrument in several ways. The distribution and variation of partial tones explain why a certain note has a particular character - shrill like the piccolo, nasal like the oboe, soft and mellow like the horn, keen and solvent like the violin, or warm and luscious like the 'cello. The distribution of overtones also controls to a large extent the general loudness or softness of the instrument or of a certain range of notes in that instrument.

Perception of timbre, therefore, and also perception of texture as a natural concomitant of this, are bound up with perception of intensity as well as perception of pitch. The very nature of timbre is determined by the number, position

and relative strength of the different overtones which go to make the individuality of tone which we call the "timbre" of a particular instrument. These overtones vary not only as to their position in the harmonic series, but also as to their relative intensity. Therefore the grasp or recognition of the timbre of a particular instrument as belonging to that instrument is in reality complex. As well as this grasp of the intensity of a single note (itself due to a fusion of several simple tones of different intensities), there is a grasp of a number of partial tones occurring simultaneously with their fundamental note as a single compound tone, or note of a particular "timbre". That is, "the sensation of a musical tone is compounded out of the sensation of several simple tones."<sup>(1)</sup> But the recognition of the aggregation of the partial tones and the fundamental note as a note produced by such and such a musical instrument (as being of the "violin-timbre", for example) is "not a process of sensation, but of perception."<sup>(2)</sup> We do not need, however, to analyse the compound tone into its constituent fundamental note and partial tones in order to place it as a note of "violin-timbre", or "flute-timbre" etc. In musical listening our attention is directed

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(1) Helmholtz, The Sensations of Tone, P.90.

(2) Ibid. P.94.

towards the aesthetic end of recognising and following the pitch-outline as sounded on a particular musical instrument, and not towards the barren process of analysing each note in itself. And yet we are conscious of the presence, and, (to a certain extent) of the nature, of these constituent overtones, for we can compare like timbres, and recognise one to be superior to another. When we mentally note (it may be only implicitly) the beautiful quality of a singing voice, or the resonant timbre of a Stradivarius violin played by a master, we base our judgment on an implicit awareness of the physical properties of the sound. Though such a judgment is usually only implicit and spontaneous, we may also form it by consciously objectifying the timbre in order to examine it. But we need not always do this. We are aware of beautiful quality when we are listening to music in the aesthetic attitude, without having to examine why such and such a tone is beautiful. When we distinguish and identify, but without thinking about it, certain timbres as flute, violin or clarinet, etc., we are drawing on our past experience of musical timbres. We even do not need ever to have consciously analysed the timbre of particular instruments in order to recognise them again or to discriminate them from others. This assigning of particular timbres to particular instruments may simply be the result of custom. We hear the notes of a flute, see the flute; and for ever after associate that timbre with that instrument. In the same way we recognise and enjoy familiar tastes without having

to isolate the constituent flavours. Or we may isolate one or two, like the taste of salt, for example, and take the rest for granted. But we should soon notice the omission of an essential ingredient.

In the same way we recognise the timbre of the violin, and discriminate it from the flute, by reason of its superior richness and volume of tone. If the tone is very full, we may clearly hear some of the "ingredients" - perhaps the first two or three partial-tones. We need not think about them, however, or consciously relate them to the fundamental note. The person with a musical bias is more likely to notice richness of qualities, and even to be explicitly aware of the constituent partial tones than an untrained or unmusical person. <sup>(1)</sup> But unless the ordinary listener has a special interest in the timbre of a note or an instrument - the desire to compare it with another, or consciously to examine it - or unless the partial tones are so strong as to force themselves into prominence, he will be more likely to take the quality of the note for granted. He will hear it as a whole, and as a whole compare it, in so far as he differentiates a passage played by another, with other notes which he hears

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(1) It is recorded that when Bach's voice broke he sang and spoke at first in octaves. Mr. C.F. Abdy Williams, in a note to P. 95 of his biography of Bach (Master Musicians Series) states that it is "quite conceivable on acoustical grounds that the first harmonic may have been prominent enough to be heard with the fundamental note, and that he, being a musician, observed a phenomenon that would escape an ordinary boy."

simultaneously or in close juxtaposition.

Beautiful timbre is usually accepted as a prime essential to aesthetic absorption in good music. It is accepted and thought no more about. Yet if it is lacking we observe the lack at once. We are disappointed if the violinist has a skinny tone,,and if his violin is poor. But should we listen to a superb violinist playing on a first-rate instrument, beyond perhaps an initial spontaneous recognition of the beauty of the timbre, we become more absorbed in the progression of the musical relationships than in the comparatively non-developing experience of the sensuousness of tone. When it is a case of music in which combinations of timbres are contrasted, like the texture of a modern symphonic work, or when there is part-playing by several different instruments, then the prominence of the sensuous quality of the sounds must be recognised as a vital and continuous part of the whole. In listening to orchestral music instrumental parts are separately distinguished, and so is each separate timbre in the massed effects of a tutti. In the latter case, however, it is the appreciation of the total effect which is important in aesthetic contemplation. The separate instrumental timbres need not be singled out, and heard separately. If they are, it will probably make the next experience of the same passage fuller and more complete, and so increase the enjoyment. But at a first hearing, and particularly in the case of the

ordinary "middle-brow" listener, it is more likely that the whole effect will be heard as one complete fusion of timbres. From this sonorous background phrases for single instruments or groups of instruments may stand out, but these isolated effects are nevertheless heard also in their relation to the cumulative effect of all the parts.

From an analysis of many works in different styles it may be concluded that there is no standard of timbre or texture, except the standard of beauty or artistic fitness as conceived by the composer. He conceives certain musical ideas which he attempts to convey by embodying them in particular timbres and textures. This does not mean that he has the idea - the system of musical relationships - first, and then looks for a timbre which suits it. Often the theme, it may be, is conceived in terms of a particular instrument at its initial conception.

There is always that inevitable variation in timbre which is due to the fact that certain instruments vary in timbre according to the pitch-range used. Timbre may also vary according to the strength with which notes are produced. A particular use of timbre occurs when different timbres help to emphasise certain effects, as in contrapuntal playing. Very often a melody is played "cantabile" against a softer background which may even be "staccato". This occurs frequently in pianoforte music.

All variation of timbre and texture seems arbitrarily determinable by the wish of the composer, except in so far as he is restricted by the technical limitations of the different musical instruments. For example, an extremely rapid and difficult passage would not normally be given to the double-bass, for it would be almost unplayable.

The listener, moreover, does not demand any particular pattern of timbre to satisfy his aesthetic requirements beyond a certain balance and variety which is a basic requirement from all art. His tastes are dictated to by the composer. He accepts what he is given. He accepts beautiful timbre as a right, and thinks no more about it. In complete aesthetic absorption in an exquisite art-song, for example, the listener may not notice the beauty of the singing-voice so much as the beauty of the song itself. The voice becomes the vehicle for the music. Should a voice of inferior quality attempt this song, the listener would at once feel that the song itself was spoiled. Beauty of timbre is perceived and enjoyed, but not for its own sake (except in mere hearing at the sensory level). In aesthetic listening beauty of timbre and also variation of timbre and intensity and all other dynamic effects are enjoyed only in so far as they illumine the music which is expressed through them. They become constituent elements of the artistic whole.

So long as certain practical and aesthetic needs are conformed to, the artistic justification of particular textural

combinations depends mainly on the standards of taste already existent, or on the degree to which new ones are felt to be artistically intelligible and inevitable.

Many works of music, like Ravel's "Boléro", which possess only slight formal musical interest, nevertheless give a fair degree of aesthetic satisfaction because of the finished manner in which they are texturally developed. Modern music, no doubt because of the great extension of the range of certain instruments once very limited in power of expression, and also because of the increased facility of playing them, shows a definite development towards textural elaboration. But orchestration or the handling of texture is the easiest part of musical composition, and it cannot be denied that the obsession of many modern composers with such an end points to a definite flagging of the vital creative qualities that go to make a great work of art.

Such a work as Anton von Webern's "Symphony for Small Orchestra" (Opus 21), scored for clarinet, bass clarinet, two horns, harp and strings with double basses, provides a good example of a musical study in intensity, timbre and texture. A programme-note by Willi Reich in the programme for the 1931 season of The International Society of Contemporary Music reads thus: "The score is very clear, and attentive readers will encounter no special difficulty in mastering its contents. But a far more difficult problem confronts listeners, who have to take in "Webern's wonderful music at the pace it is played.

It is only by repeated hearings that one can comprehend the subtly carried-out linear structure of the work."

The italics in this passage are mine. Their insertion emphasises the fact that the variation of timbre, texture and intensity throughout the whole work, and even throughout the duration of each separate note, is so complex and necessitates each note possessing a duration so much longer than is usual, that the relationships of pitch and rhythm are obscured to any ordinary listener. Each note doubtless has its place in the pitch-outline; but this place and the meaning which the note derives from its position among other notes are lost during the tortured dynamic treatment of the note. It is for this reason that the work does not give complete satisfaction to the listener. Moreover, when, after repeated hearings, or by having recourse to the score, the listener can grasp the time and pitch-outlines, he finds that all the novelty of the dynamic treatment has worn off. He has nothing but the bare bones. This point, that variations in dynamism, being most easily grasped, pall soonest, has already been stressed.

But far be it from me to gainsay the beauty of exquisite timbre, and the immense enjoyment derived from a musical work which is enhanced by artistic dynamic treatment. It can indeed be asserted that great musicians have found their inspiration in the beauty of a voice or of the skilled playing of a violinist. Mozart and Beethoven were both composers who wrote

music suitable for whatever resources they had at their command; Mozart especially being adept at writing graceful and pleasing music for unusual instrumental combinations. We also learn that Beethoven wrote the famous Kreutzer sonata especially for the violinist Bridgetower.

We must now examine more closely the manner in which the separate orchestral colours of the texture of any work of music are separated out and followed, in the experience of the complete work. The perception of the quality of a note - its timbre - is, as we have seen, a multiple perception, of a number of single pitch-points and the fundamental note to which they belong. (These constituent elements are not necessarily made explicit.) The grasp of the note represents a fused perception; it is an experience of a single, but complex note of a particular quality. This quality depends on the position and number of the partial tones above the fundamental note. According to Helmholtz's theory the perception of the pitch of a note or sound is due to vibrations, sympathetic to the constituent vibrations of that note or sound being set up in the basilar membrane of the inner ear. Now if the perception of a certain sound as being a musical note of such and such timbre involves such a complex process of analysis and synthesis, how much more complex must be the process by which we perceive the implications of texture. By this I mean the perception of multiple timbres, combined and

contrasted either simultaneously or in close juxtaposition. How, out of the welter of sounds in a mighty "tutti" do we discriminate and follow the many instrumental outlines which form the texture of a work written for full orchestra? Such an experience involves a most complex process of analysis and synthesis. It includes an immediate and unconscious selecting and combining<sup>of</sup> each fundamental note with its respective overtones. This must be done in order that different textural strands may be identified, followed, combined or contrasted with other textural strands. Our ability to distinguish the different timbres depends partly on our familiarity through past experience with the quality of different instruments, and also partly on the musical coherence of the different parts. The different partial tones are thus immediately assigned to their respective fundamentals from habit, while the coherence and significance of a single instrumental part help our following<sup>of</sup> a particular timbre-outline.

The direction of the sound also plays a part in the recognising and identifying of the timbre of a certain instrument; just as the eye helps us to fix the direction from which the sound comes by relating the movements of playing to the changes in pitch of the sound produced.

Take, for example, the case of the individual who has, we might say, a thorough but limited knowledge of music derived almost solely from the pianoforte. What would his experience be when confronted for the first time with a full orchestra?

Since he would be accustomed to following musical parts at the piano he would be able to distinguish, up to a point, the parts played by different instruments by reason of their musical continuity. But in much modern orchestral music coherence of parts, or timbre-outline fused with pitch-and-time-outline, is often of very imperfect musical coherence. Instruments ejaculate notes at intervals, less in order to sustain a part of definite musical interest than to heighten the total orchestral effect, or to afford fresh contrasts in tone-colour. Therefore the power of recognising coherent parts would not help him here. A first hearing might give him the complex but undifferentiated sensation of many sounds; the total effect being perhaps not even musical, and even approximating to noise. In this respect such a listener would resemble the unmusical person who is confronted by a full orchestra playing Stravinsky. To the latter the music would simply be unintelligible, mere noise.

But unlike the untrained listener, whose experience would probably never rise above the sensory level, the listener in question would, by attentively listening, be helped out by noting the directions from which sounds proceed, and so on, eventually be able to associate certain notes with certain instruments or groups of instruments and thus come to recognise and follow definite instrumental parts. Especially would this be so in the case of outstanding instruments like violins, and

the brass. The keen notes of the violin are easily identifiable, both because of the volume and penetration of the massed violins in an orchestra, and also because a coherent musical outline is nearly always given to the violin as the instrument most capable of sustaining a coherent part. As this individual continues to attend to the music, other instruments will be singled out and identified, until, by a process of elimination, all the instrumental timbres will become distinguishable and known.

This example is, of course, suppositious. Such a case is hardly likely to occur today when from every street-corner blares a loud-speaker. There may be exceptional cases of people living beyond the reach of wireless, and who have never heard a gramophone. But music is the most social of the arts, and wherever a community appears, music enters naturally into work and play. Thus almost every individual has had, at some time or another, opportunities of becoming familiar with the ordinary instruments which are the foundation of the modern orchestra. It is on this past experience of instrumental timbres as they occur separately in simple musical contexts, that the recognition and appreciation of orchestral texture in symphonic music are based. The enjoyment of texture, like the enjoyment of the other dynamic factors of music, must, however, be controlled by recognition of the artistic justification of its use in the total musical conception.

In aesthetic listening the satisfaction and pleasure afforded by these factors are secondary to the satisfaction and pleasure afforded by the whole formal outline of a work of music.

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CHAPTER VII.

THE MEANING OF MUSIC:

CONCEPTUAL AND IMAGINAL RESPONSES TO MUSIC.

## CHAPTER VII

### THE MEANING OF MUSIC: CONCEPTUAL AND IMAGINAL RESPONSES TO MUSIC.

Just as there can be no line marking off the sensory response to music from the perceptual response, for the one attitude is the basis of the other, and sensory experience shades imperceptibly into perceptual experience; so perceptual listening leads up to conceptual listening without any break between the two types of experience. The conceptual response grows out of the perceptual response. The difficulty of dealing with perceptual listening as static experience at a single level was apparent in the analysis of the musical examples in Chapter IV. Continual reference to higher levels of experience must necessarily be made in the discussion of perceptual problems. The perceptual response was the interpretation of the sensory material by means of the formulating and the grasping of relationships. The conceptual response to music is the interpretation of the perceptual effect in the light of past musical experience, and the giving it meaning and value according to the depth and richness of the subject's musical background. (1)

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(1) "Perception is developed in the interest of sensory problems, and conception or thinking in the interest of perceptual problems. But the higher forms take an interest of their own as well." (W. Mitchell, The Structure and Growth of the Mind, P.391).

The imaginal response, which is closely connected with the conceptual response, presumes; in the case of the listener, the recreation of perceptual material by means of memory, and the prediction of further musical development; in the case of the composer, the creation of new combinations of sensory material to form music.

It is with the case of the listener that I am primarily concerned. The attitude of the composer, here, as throughout the entire analysis, receives only passing reference.

Listening at the conceptual level is characteristic of the highest kind of musical absorption. In musical absorption there is that re-creation of the music, in a special sense, which occurs when the subject lives the music or makes it his own, by identifying himself with the formal relationships. He follows them subjectively, but he must actively follow them, not let them flow over him passively as in hearing at the sensory level. His active attention only becomes passive in the sense that as he grasps and enjoys them he is caught up and carried along with them.<sup>(1)</sup> But he also feels himself as agent, as recreating the musical relationships as they form. The sense of effort which often characterises his initial obscure grasp of the music, dwindles when aesthetic absorption becomes most complete, for then intellectual grasp is clearest. Yet the feeling of being agent, of directing the music's flow,

also involves a sense of effort or achievement. For though the keenest musical pleasure achieved in aesthetic absorption is free, or almost free, from the sense of effort which occurs when the relationships are difficult, there is always present a certain exaltation, a feeling of mastery or of self as triumphing, due perhaps to the sense of agent-ship, which suggests that difficulty has been overcome, or effort successfully made.<sup>(1)</sup> It is this exhilaration due to this almost unconscious feeling of power and mastery, here described very imperfectly from my own musical experience, which seems to give a certain conative value to aesthetic listening.

The listener also feels himself "agent" or even "creator", because he is able to predict the musical relationships; or if he cannot actually predict them, he feels, when they do occur, that they were inevitable. Thus I must emphasise again that this feeling of "creator-ship" is bound up with the intellectual grasp of the relationships, and with the recognition of their meaning. In complex music, the thorough-paced listener must call on the functioning of memory and imagination in order that such music may be followed and enjoyed - and lived - as a significant and beautiful whole of formal musical relationships.

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(1) "Pleasure enters into work and rest, into excitement and peace. Hence there is a joy of work different from the joy of rest, and a joy of peace different from the joys of excitement. Thinking has its own pleasure of novelty, of unimpeded advance, and of achievement, when the mind is fresh and adapted to its work; and these determine the joys of the intellectual life." (Alexander F. Shand, The Foundations of Character, P.276.) The exhilaration and pleasure in these things also intensify the joys of the aesthetic life, in so far as aesthetic experience depends on intellectual work, which it has been my object to prove.

It is necessary to emphasise the play of memory proper in the appreciation of complex music of extended form. Any musical work on a large scale, like a sonata or a symphonic work, requires a certain effort of concentration and memory in order that it may be cognised as a whole. The extended grasp necessary to realise the organic unity of the complete work means that the parts must be analysed (not explicitly) compared, contrasted and synthesised; and all these functionings require memory-activity. A brief analysis of any single movement from a Beethoven sonata will show most clearly the functioning of memory. The appreciation of a complete work involves the same kind of experience, only on a larger scale, for here the whole is made up of contrasted movements. Their connections, in the latter case, are not nearly so clear as the connections of the parts of the single movement. There is, however, a definite unity of "musical mood"; which movements in contrasting styles, and in contrasting or related keys, make up, and which is clearly realised by the musically cultured listener.

Let us take for consideration the first movement of Beethoven's Sonata, Opus 14, No. 2. The listener must first grasp and identify the themes in the exposition. (None of the following experience is explicit, although the listener may also analyse the movement explicitly for better future listening.) He follows the first subject, the repetition with

variations of a "questioning" semi-quaver phrase as it extends into the bridge passage leading to a new subject in a new key. These things - the contrast of key, and the change in the character of the phrase - he must realise, if he is to follow the musical significance in full. The second subject, of four sections, is in marked contrast to the hesitant nature of the first. The smoothness of the final section has all the finality of an answer, while the insistence on the new key, D major, in the prolonged cadence establishes a new key-unity for the ensuing development.

In the development there is implicit reference to memory inasmuch as the listener marks the extent to which the themes of the exposition diverge from or coincide with their original appearance.<sup>(1)</sup> It is not enough for him merely to follow and grasp the new musical relationships as they progressively appear. He must perceive their logical musical connection with the music which has gone before. The new developing units must be grasped always in relation to the original themes etc. out of which they have developed. Thus the memory of the original musical ideas in the exposition colours the significance of the development, where they occur in expanded or

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(1) A theme might be described as a musical idea possessing a coherent musical meaning of its own, the significance of which is peculiar to that particular musical arrangement of notes. It permits of slight changes and extensions, and can be incorporated into the unity of a complex movement.

modified form, as the case may be. The form they take here depends partly on the principles of sonata-form - they have to conform to certain exigencies like modulation, and so on - and partly on the composer's fancy, since he can interpret, within wide limits, the laws of sonata-form according to his own taste. In so far as the listener finds that the music conforms to the standards and conventions which are the basis of his musical taste, so will his musical experience be satisfying or unsatisfying.

To continue with our analysis: we find that on memory again depends the effect of the recapitulation or final section. Here the return to the original themes in the original key has the added significance of a return to familiar ground; although the re-statement of the subjects of the exposition may still present some new aspects. The interest and excitement aroused by the initial appearance of these subjects and which continues to increase during their development - where they appear changed in structure perhaps, and in different related keys - all this excitement is finally allayed and the listener's interest returns to the initial state of repose. This final return to stability is made more certain by the prolonging of the final cadence into the coda. Where the flight from the point of departure has been greatest, there the coda is extended sufficiently to re-establish firmly the stability and repose necessary to the ending. When the parts

have been most markedly in contrast, there the coda is needed to supply their final reconciliation.

The experience of the whole movement has been one where interest and expectation have been aroused by the recognition of sameness in difference. This important factor of musical experience is a fundamental source of pleasure in any aesthetic experience. In music this effect of difference may occur in several ways - by modulation, or change of key, by slight variation in the pitch or rhythmic outline, and by change in the dynamic treatment. In the Beethoven Sonata described above all three factors occur. But in the example above there is additional interest derived from the use of contrasting themes which are subtly interwoven so as to form a unified whole.

The pleasure afforded by the recurrence, in a slightly changed or embroidered form, of a single musical idea is the basic principle of the "theme and variation" movement. Here the emotional effect is more primitive than in the case of a more complex musical form like sonata-form. Interest is confined to following the changes in a single theme, and thus the whole experience is much more simple. The less-talented layman always prefers the variation-form to a more complex form, for he can grasp it more easily, and enjoy its obvious repetitive effects with little effort. (1)

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(1) Might not the recurrence of the "leit-motifs" in Wagner's operas, emphasised as these are by their stage and character associations, help to explain the popularity of Wagner's operas among the musically uninitiated?

His pleasure is fundamentally akin to the primitive aesthetic pleasure of the savage, the young child, or the mentally undeveloped - of all primitive unsophisticated types, in short - in the bare repetition of a single note, or single pair of notes. In the pair of notes, there is, however, a pitch-contrast, which raises the aesthetic value of the experience above the level where the pleasure is derived from the effect of bare repetition only. In the case of outstanding variation-movements, like the famous works of Beethoven or Brahms, for example, it is the breadth of the initial idea, and the artistry and originality with which this is varied, rather than the mere effect of repetition, which gives such works aesthetic value.

The thorough-paced listener also gets far more from his experience of such works than the simple pleasure of repetition, though this is nevertheless felt as underlying the whole experience. As in the case of listening to sonata-form, there is implicit reference to memory, for the beauty of any one variation does not lie only in its intrinsic value, as a single musical unit, but also in its relation to the theme which it embellishes or develops; and in its position among other variations. For example, the musical point of a slow movement is partly determined by its occurring after a quick one; while there is also the subtle effect afforded by the use of contrasting and related keys for successive variations..

The extended grasp of such complex musical works as I have discussed above, is rarely achieved by a first hearing, as perfect and complete.<sup>(1)</sup> In most cases the completeness of the grasp necessary to aesthetic absorption requires preparation. That is, the music must have been thought about; its parts are explicitly analysed in order that they may be followed and understood in their musical unity at a further hearing. Or the listener may have a knowledge of similar works of music on which he can draw in his appreciation of a new and unfamiliar work. This explicit analysis of the wider systems of musical relationships which make up music is usual in the student of music, as we have seen. It also occurs when experienced musicians are listening to a new work which presents certain subtleties of form not readily apprehensible. It may also form part of the experience of the layman who has had frequent opportunities of becoming familiar with musical relationships by ear. He may never achieve more than a very imperfect explicit thought of them, since he cannot go far beyond the resources of his ears. Nevertheless, by dint of practice he frequently becomes skilled at marking and following outstanding themes, and even at following fairly successfully the logic of their musical development. Listeners like

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(1) Against this we have the claim, (referred to in the Introduction, P. 21) of Professor E. J. Dent, who finds his interest in any musical work is exhausted after a single hearing, for it no longer possesses any novelty for him.

the student and trained musician soon become familiar with the connections of part with part as making up the complete musical work. Because they have thus laid in the groundwork, or formed a background of musical experience, they need no longer explicitly think the relationships or the connections of the parts in order to grasp the significance of the whole. They can take these for granted in the light of past knowledge; and only need to make passages explicit when they cannot immediately fit these in with that musical background. (1)

This above process may be connected up with what Professor Mitchell calls "conceptual perceiving", with reference to the fact that in order to follow complex relationships more easily in the future, the subject makes them explicit so that he may know them again and use them - by taking them for granted - as a basis on which to build a richer and more extended musical experience. Incidentally he builds up a richer and more significant musical background at the same time. (2)

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(1) Professor Mitchell's illustration of the difficulty of following another's systematic idea which is conveyed by words serves admirably to illustrate the difficulty of following music. "The difficulty is always that the series is not to be summed up after being set out, but from the first word. For at every later stage the earlier parts have to be taken for granted; they have to give a definite value to what follows, till, nearer the end, the nearer the whole is organised into the single systematic thought from which the series has been evolved." (W. Mitchell, The Structure and Growth of the Mind, P.377). For "single systematic thought" read "unified systematic whole; "the musicality of the artwork."

(2) See Chapter III.

The quickness to grasp "musical meaning" thus depends in part on the extent to which the subject has conceived them (in this special sense of "thought them explicitly") in the past. That is why technical training is desirable as a preliminary to aesthetic listening. As I pointed out before, he must use such conceptual perceiving only as a means to aesthetic listening, and not confuse the means with the end, and find his chief interest in listening objectively instead of subjectively or contemplatively. In the former case he makes the relationships explicit as he goes along, and analyses their connections, judging them according as they suit his taste, or fit in with his background of musical intellectualism or technique. He may believe that the interest and satisfaction he thus obtains are aesthetic. But it is not so, since it is merely interest in the means by which aesthetic beauty is achieved, and not interest in the developing beauty and significance of the music. This interest in the "musical significance" of music - in its musicality - we shall see later is characteristic of what I call "conceptual listening" in aesthetic absorption. Objective experience is experience at the conceptual level in the way I have described, but it is less valuable as aesthetic experience since the assumption of the objective or the critical attitude inhibits the subjective experience of living the music, which I consider the highest aesthetic experience of music possible to the listener. But objective listening is always valuable as a means of clearing up musical obscurity.

Thus the prediction of the cadential resolutions in Chapter III becomes conceptual experience (in the objective sense) when these are explicitly thought, or definitely imagined. The musician ordinarily does not have to think these, for being familiar musical A. B. C. to him, they are taken for granted. The progress of any musical progression is taken for granted as long as it can be understood in the light of past experience. The meaning and value which these derive from his explicitly thinking the same or similar relationships in the past, is thus due to conceptual perceiving.

The extent to which imagination enters into conceptual listening is not so clear. The musician is able to imagine musical developments with tolerable accuracy, though he does not always trouble to do this. So also can the experienced layman. Imaginal listening, however, occurs most often in cases which may really be distinct from aesthetic listening proper, or at any rate where it is subsidiary to aesthetic absorption. The experience of hearing a melody in harmony, when only the melody is actually heard, is one example. A trained musician notes the harmonic implications of any melody almost unconsciously. He also hears melodies, or music in general, in tonality, or as departing from tonality. In both these cases there is always implicit reference to past experience. Concepts like tonality and harmony have value through the subject's musical background. The musical associative

background formed by the individual determines his response to music in general. Thus, for example, the Chinese and the European listener, each of whom has been brought up in the classical traditions of his own music, respond differently to the same music because each brings a different musical background to his understanding of the same work.

All experienced listeners possess an associative musical background which colours their musical listening, and according to which they endow certain musical implications with a derived value. Very often, perhaps, they may find it difficult or even impossible, to dispense with this background, when they set themselves to listen to music in a foreign idiom. This also explains why many musicians of the old school dislike certain advanced modernist compositions. They cannot interpret these according to their musical background; nor has such music any derived value for them from its musical associations.

Any thorough-paced listener's interest in music depends, among other things, first on how far novelty is present. (1)

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(1) "Our interest declines in the knowledge that we have already learnt, and in any exercise that has the ease of habit and requires no exertion." (W. Mitchell, The Structure and Growth of the Mind, P.381. For example, the simple Verdi airs which appeal to the child are trite and stale to him when he reaches musical maturity. "Our mental appetites are altered with their satisfaction and demand a different meal." (W. Mitchell, The Structure and Growth of the Mind, P.405.) Nevertheless, familiarity does not always destroy our pleasure in a beautiful work of music, otherwise we should all be modified editions of Professor Dent. Music on a larger scale usually has for the ordinary listener some fresh aspect of beauty which rewards each new hearing.

Over-familiar styles tend in the end to become boring and cease to sustain aesthetic interest. But in all music from which we obtain aesthetic pleasure there must be a certain basis of familiarity. The link between the present experience and the musical background must not be too obscure. Thus interest is hindered when the novelty is so great that it prevents coherent grasp. If there is no link between present hearing and past experience interest may fail altogether; the music simply remaining meaningless. This occurs in the case of the European listening for the first time to Asiatic music. In order to grasp it, he must start again at the sensory level and build up a background in the new musical idiom. Here the musician is at an advantage compared with the untrained listener, as he has at his command a practised skill in making musical perceptions. His interest and pleasure in the unfamiliar music grow according to the success with which this skill enables him to form a new background. But he cannot help calling on his past experience to some degree, as this cannot be entirely discounted. That is, he tries to fit as much as will go of the new idiom into the old background; his success varying according to how far the new can be made to fit in with the old. Where there are features in common these form the beginning of the building up of the new background.

I have referred several times to the grasp of connections as being a distinguishing factor of conceptual listening. The

significance of this characteristic as applied to music is not obviously apparent. In the realm of thought it is easily enough understood, for there it is possible to make a distinction between the means of thought - the words and the end achieved by these - the meaning. In music it cannot be too much emphasised that the grasp of the means and the grasp of the meaning are one. The musical meaning lies in the unity of the musical relationships, and cannot be separated from these. The relationships are the music, and the beauty and significance of the music lie in the relationships for those who can see them. The grasp of the one involves the grasp of the other, always supposing that the relationships can be recognised as related, as coherent, and as valuable in themselves.

In conceptual listening, through the grasp of the relationships as musical relationships, there is achieved the realisation that these are illustrative or presentative of a developing significance, which I have elsewhere referred to as "the musicality" of music. This occurs in the sense that the subject surrenders his ordinary conception of "meaning" as being only expressed in connected and logical ideas conveyed usually by words; and follows and grasps the meaning of musical concepts or ideas, which are conveyed by note and time-relationships. No definition of a musical concept can be satisfactorily offered, except that such musical ideas seem coherent, significant, impressive and inevitable in the light

of past musical experience. These musical ideas, through the logic and coherence of their combination - a legacy of all music - are felt to be satisfying and significant according to the subject's musical standards. The meaning of the system of musical ideas seems to lie in the system of the musical relationships themselves.

When the subject becomes aesthetically absorbed in music, he grasps and identifies himself with this meaning and beauty of music. He does not only follow it as he would follow the working out of a mathematical problem, though should he identify himself with the solving of the problem and delight in the clarity and economy of the solving his experience becomes somewhat analagous to the musical experience. He identifies himself with the music as a developing meaning and beauty which can only be understood in musical terms. He can only reach musical understanding by intellectual means; that is, he has to call on his musical knowledge and experience to understand and enjoy its beauty as music. We have seen how the subject responds to familiar and to unfamiliar music by means of his power of "taking relationships for granted." These relationships are grasped with reference both to their intrinsic musical value - as new groupings or musical ideas - and to their derived musical value - as new combinations of familiar relationships. <sup>(1)</sup> Their derived musical value depends

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(1) See Chapter X.

on the musical associative value they possess from their occurrence in different musical contexts throughout music's artistic development. Thus according to the changing standards of musical taste, yet always with reference to some absolute but undeterminable standard of formal musical beauty, the musical ideas seem to make up an inevitably right, impressive, and aesthetically satisfying musical whole which is felt to be significant and beautiful for and by itself. When the subject relives the music - becomes aesthetically absorbed in it - he has an experience of beauty and meaning which possesses value for him only in the light of his past experience.

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PART II.

THE ASSOCIATIVE ASPECTS OF MUSIC.

CHAPTER VIII.

MUSIC AND MAN.

CHAPTER VIII.MUSIC AND MAN.

The deep associative significance of music is partly a heritage which traces back to the beginnings of human life, and partly the more recent result of that musical environment and training which goes, and has gone in the not-distant past, to produce the musician and the cultured listener. There is, finally, the important part which the perception of natural sounds and movements in the external world of nature plays in the representative side of the art. It is difficult to dissociate from the absolute meaning of sound and rhythm as conceived in musical terms that associative value which these musical sounds derive from their occurrence in the world of natural phenomena. This "nature" associative value imparts a substratum of implicit meaning to all musical experience. When made explicit by the uncultured listener - the type which enjoys storm-effects in music, or any such obvious imitation - it affords him extra-musical pleasure; but in aesthetic listening its intrinsic value is at a minimum, and the thorough-paced listener is rarely actively aware of it.

The part association plays in the experience of musical listening may therefore be discussed from these three aspects. The first and second aspects I shall treat first, in Chapters VIII and IX, leaving the third to the last, in Chapter X.

The first aspect of the associative meaning which is attached to the art by music's early connection with life itself, has a deep-rooted significance. Music, that is, music in its rude beginnings, is bound up with man's earliest struggles to sustain and propagate life. It is indissolubly connected with the survival and growth of the race. Thus music possesses a certain deep emotional significance, unanalysable, and only dimly felt, since the sources whence it sprang are no longer definitely recalled. Darwin's theory has it that music primarily had its root in the instinct of sex. (1) It was one of the chief elements in courtship or mating. Whether or not we can accept this as an adequate explanation for the beginnings of music (an explanation not of extreme importance to the present enquiry) it certainly cannot be doubted that music was closely connected with this fundamental aspect of life - the continuance of life itself. Though this connection has become obscured, since music as an art has now passed beyond the point where it played a part in sexual selection, nevertheless the association, indefinite and lost to view though it may now be, still clings to music. This is what Edmund Gurney means when he writes of the fundamental associative meaning of music. This writer regards music as being bound up with all the emotions most vital to

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(1) E. Gurney, The Power of Sound, P.116.

life. Yet though he recognises music to be thus vitally significant, it is, he explains, a significance of a vague and mysterious nature, of which the impressiveness receives an added value by reason of the very mystery in which it is shrouded. (1)

Though this explanation as to the origin of the emotional significance of music is to be accepted with reservations, it cannot be gainsaid that music, with its sister dancing, is of all the arts most likely to occur in the above connection. The very physical factors which determine its being - sound and movement - are obviously capable of stimulating the nervous system to a state of intense excitement more immediately than the physical qualities of any other art.

As will be seen later, music does possess, or seem to possess, an intense emotional significance on account of the prominence of its dynamic elements. (2) The explanation which I put forward later, I need only give in brief here: It is that the emotional tendency or direction of any mood aroused by music represents a subjective interpretation which the dynamics of music serve to body forth and to which they give strength. Music is the dynamic of emotion, since it can express the intensity or the rapidity of change and movement of emotion. The dynamic qualities of force and pace are transferred to the

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(1) E. Gurney, The Power of Sound, Chapter XI, Pp.117 et seq.

emotional states of the listener. From this viewpoint music is not so much capable of expressing or arousing definite emotions as of prolonging and deepening those already present in the subject.

It is sufficient to suggest here that it is most likely the very strength and all-embracing quality of the fundamental and mysterious connection of music with the primary emotion of all which permits music thus to universalise all emotion. This universality and indefiniteness enables music "to point," as it were, existent states of emotion. The original emotional excitement of which music in its bare primitive beginnings was both the occasion and the accompaniment, has been sublimated, in the development of music as an art, by developing a new interest. The music, the occasion for the emotional excitement, has itself become the object of interest. By assuming this secondary and disinterested importance music has taken on an aesthetic meaning and value. Yet while music has become invested with the power of evoking and sustaining an interest in itself for its own sake, it has not lost the far-reaching effects of that early intimate connection.

But this is not the only connection which music has made in its infancy. In almost every direction we find that music (or its primitive progenitor) has allied itself in some form or other with work or play. Music is enduringly connected not only with the elemental and primitive actions and emotions of the human race, but also with equally vital but less intense

activities of life. There is, for example, the functions of motherhood. Many of our loveliest melodies have their source in the crooning of a mother as she rocks her baby asleep.

Primarily it must be remembered, however, that music, in its beginnings as well as in its later developments, has a strongly social aspect. Where music accompanied such activities as the search for food and shelter, or the struggle of the weak against the strong (where the social aim is negative rather than positive); we always find that music occurs in connection with the group rather than with the individual. There is, indeed the case of the solitary creative artist, who goes apart from his companions and produces his artistic creation in solitude. So long as he takes pleasure in the absolute existence of this primitive work of art because of his interest in it for its own sake, the question of the social aspect does not come in. In the first place such an act of creation is performed for the sake of self-expression or self-fulfilment. But all artists desire an audience, and later the desire comes to show off his superiority to his fellows, or to seek their admiration, by communicating to them his work of art.

From earliest times music has been an accompaniment and aid to concerted action or movement. Whenever a group of people gather together for work or play, music, or the embryo of music, naturally comes into being. First, on the side of

work, we find a rough kind of music, generally in the form of a rhythmical chant, helping to ease the strenuous effort involved in manual labour. Here the recurrence of certain "accents" marks the moment when all must strain together. The toil of felling trees, lifting heavy logs, launching boats, pulling on a rope, rowing, and so on, could all be lessened by organising the actions of a band of helpers. Such organisation would be imposed on their movements by means of the aforesaid rhythmic discipline. Rhythm, one aspect of music, thus steps in to organise concerted movement.<sup>(1)</sup> But bare rhythm only exists theoretically. Practically it must be embodied in sound or touch. (The latter is obviously not effective in cases like those I have been discussing.) Sound is therefore combined with rhythm; the sound (or pitch-outline) being usually of a monotonous character since it is subordinate to rhythmic impulse. Moreover, the sound tends to assume the same character as the work to which it becomes an accompaniment. The long-drawn "heave-ho" of the sailor is expressive of the slow-continued effort of pulling an oar through water, or of hauling on a rope, etc. The dreary and plaintive song

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(1) Karl Bucher, in his treatise on "Arbeit und Rhythmus" develops the hypothesis that rhythmical art is derived from physical labour. It is a fact, as Groos points out (The Play of Man, P.46), that "spontaneous rhythmical movement in physical labour conserves psychic as well as physical force." Thus the origin of music is connected with toil. The latter writer also holds that music attained independent existence through the emergence of dance-motions which were substituted for the motions of labour. An element of miming might tend to remain.

which accompanies the indifferent toil of slaves is expressive of the hopelessness of the spirit resigned to the monotony of slavery. (1).

Then there is the search for food, in which music is involved in two different ways. The first, and more important, is pastoral. The shepherd pipes his flocks and passes his leisure, perhaps, in improvising tunes or in imitating the calls of animals. Many of our modern instruments, because of their origin in this connection, are felt to possess a distinctly pastoral flavour. (2) The second way occurs in hunting; but the associations music has gathered from hunting are of a more sophisticated nature. Specific hunting calls belong to a later date, when hunting was the organised pastime of the nobility. The form of these calls remained simple, however; since they were of necessity confined to variations of the first few notes of the harmonic series (horns and bugles possessing only a limited range). Thus many arpeggiated variations of the common chord in music recall the flourishes of the chase.

It is unnecessary to give here a painstaking account of all those occasions where music in some primitive form accompanied the many activities of human life. But several further

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(1) George Dyson, The Problems of Music, P.46-47.

(2) cf. Appendix A.

examples, such as the part music played in fighting and in dancing may help to show how such activities have surrounded music with a mass of associations which still cling to it. It is easy to imagine how loud shouts, either expressing defiance, or used to signal to fellow-warriors, came to be augmented and even supplanted by the sounds of instruments. The notes of the trumpet or the fife, and the roll of the drum, would carry farther than the human voice in the double work of intimidating the enemy and urging fellow-soldiers on to battle. The utterance of loud, harsh or shrill cries as danger-signals, or as a general expression of defiance and means of intimidation dates back to the time of our arboreal ancestors. Next to an actual bodily encounter a menacing cry was obviously the most immediate means of scaring off an intruder. But besides this threatening quality of loud sound there is often the additional effect of rhythm. Of all instruments the drum may be described as the most war-like, since it combines the dread sound of its muffled roar with the ominous threatening of the rhythm in which it is played. (1) The stirring effect of rhythmical drum-beats is an integral part of warfare among savage races. But it is not always the loudness which is so awe-inspiring as the insistent effect

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(1) The drum is most likely to be played rhythmically, because of the regular physical effort involved in striking it most easily.

of the variations of the rhythm. Moreover, the sound may be quite subdued, even muffled, yet be heard many miles away. Dr. Vernon Lee describes the drum (not quite accurately, however, since in the modern orchestra drums are tuned to several different pitches) as "the least musical (since it ignores all difference, all interval, all movement in pitch) and the most compelling"<sup>(1)</sup> of all instruments. Dr. Lee quotes in illustration of her point a passage from D. H. Laurence's "The Plumed Serpent" (P.356) where is described the "peculiar uneven savage rhythm which at first seems no rhythm, and then seems to contain a summons, almost sinister in its power, acting on the helpless blood direct."

An excellent modern musical example of how the drum is used to help convey an elemental impression of the savage ruthlessness of war, occurs in Gustav Holst's "Mars", in "The Planets Suite." There is a barbaric ruthlessness about the reiterated rhythmic figure used by the composer, which owes quite as much of its effect to the savage impetus of the rhythm as it does to the rough and strident chords which clothe it.

We find music not only in the actual field of battle, but also when the soldiers are on the march. Music also sounds at the camp-fire, where at night the men join in a clamorous chorus, or listen to the song of a single entertainer. Such a minstrel may delight all hearts with familiar tales of love and war, or stir his audience on to fresh conquests by representing in song or dance the victories in which they have

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(1) Vernon Lee, Music and Its Lovers, P.129.

taken part.

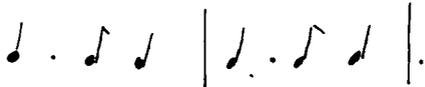
In the above examples it may be noticed that rhythm occurs always as intimately connected with bodily movement, and especially with group-movement. This is so when rhythm is invoked as an aid to strenuous manual labour. But rhythm is just as effective in aiding the ordinary movements of the body, in the spontaneous actions of walking (and marching) and dancing. Whenever spontaneous movement must be organised, either in order to get the maximum result out of the minimum effort (as in marching, or rowing), or in order to allow others to take part (as in dancing) rhythm comes into being. It has been suggested that the rhythm which accompanies walking (or marching) is a rhythm in groups of two - spondees; while that rhythm which seems most natural to accompany dancing occurs most often in groups of three-dactyls.<sup>(1)</sup> That a two-rhythm should accompany the measured and even placing of foot before foot in walking and marching is easily understandable. The body is bi-lateral. We have two arms, two legs, two eyes, and so on. It is therefore natural that the balance and progression of ordinary movements should be in an equal rhythm of twos.

But the explanation as to the frequent use of a triple rhythm in dancing is not so apparent; especially as triple rhythm is not invariably the rhythm used for all dances. In general quick dances are in three rhythm (or dactylic) while

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(1) Edward A. MacDowell, Essays, Critical and Historical.

slower and more stately dances are in a two-rhythm. In the music of the last few centuries we find that jigs, courantes and minuets are in triple time, while gavottes and allemandes are in common (quadruple) time. On the other hand we find that the sarabande is in slow triple time, and rondos are in quick duple time.

Macdowell's theory is that imperceptibly the first beat in dancing is lengthened at the expense of the second, so that the measure becomes , (a trochaic measure). The factor of physical fatigue is the explanation of this modification, and also of a further change of the measure to  (a dactyl). For it is necessary to alternate the strong beat from one foot to another, and this can only be achieved by introducing an intermediary step - the quaver in the example above. Thus successive measures for left and right feet give a phrase unit of two complementary figures, e.g. . Slow dances involve a nice distribution of poise and balance in the movements of the body as it changes from one position to another. Such equally balanced movements, like walking and marching, require a duple rhythm. In the sarabande the effect of the rhythm being in threes is rather discounted by the extreme slowness of the pace (the bar may be felt as six half beats) and also by the fact that the lengthening of the second beat throws the accent out of its normal position. In the more rapid dances, like jigs,

mazurkas, and so on, the satisfaction of the dancer is not so much derived from pleasure in a sense of his own equally balanced movements, as from a perception of the complementary movements of a partner, or vis-a-vis, or of a whole group of dancers of which he is only one. His bodily movements are not attended to for the sake of their inner harmony so much as felt as incidental to the weaving of a pattern of combined movements with other dancers. A pattern, moreover, presupposes a central point, or node, with two opposing or contrasting points, for "pattern" is not bi-lateral, but tri-lateral. From this aspect it would seem that quick dances permit the achievement of a larger unity than slow dances. For though there must also exist in the former something of the same sense of inner harmony which characterises slow dancing, this is turned to larger ends. The enjoyment arising from the subjective movements is secondary to the enjoyment of making up a form. Slow dances seem to afford opportunity for satisfaction in a more subjective or actual bodily realisation of rhythm, - i.e. a delight in personal rhythm - while quick dances relate these subjective movements to the more objective experience, the joining with other dancers in a pattern, and thus afford enjoyment in a more distant object.

The modern preference for slow dances, and the supplanting of the old "pattern-dances" like the lancers, quadrilles, etc. and all folk-dancing, seem to point to the conclusion that the modern dancer gets more enjoyment out of his own movements than

out of the weaving of group-patterns. (It is understood that in modern dancing the dancer and his partner are as one. I am, moreover, discounting the effect of sexual attraction etc.).

The increasing popularity of Eurythmics also seems to show that in dancing interest is becoming more and more confined to interest in the subjective interpretation of rhythm. The discipline of the more formal dances, where the individual had to subordinate or merge his personality in the general form of the dance, consisting of combined and contrasted group movements, has been replaced by the freedom of the expressionistic school. To the performer this is eminently satisfying, but it is not always so pleasing to the spectator. He can have an interest in the subjective states of bodily harmony only at second-hand, so it is desirable that this uncertain sympathetic interest should be augmented by the added interest derived from following a series of patterns or group-movements, or even the organised movements of a single individual.

Within its own sphere, dancing may be said to have followed the same general trend as music. Modern composers show increasing eagerness to get rid of the restraints imposed on music by the old classical forms, as the need for self-expression unhampered by formal restrictions becomes more insistent. It is interesting to note how the sister-arts of music and dancing, once so intimately connected, should today proceed to develop, each by discarding that very element which it had in

common with the other. When music was the handmaid of dancing the art of music became linked with the formal pattern-arrangement of dancing. With the emancipation of that more isolated growth of music - modal music - from the restrictions imposed on it by the church, and with its consequent linking up with the popular dance-music then existing, the old dance-forms were retained, and eventually were transferred to music in its evolution as a separate art. From the dance-suites were developed all our classical musical art-forms. These forms, which coalesced in the sonata, were expanded by Beethoven to their utmost degree in order to express adequately the subjective value of his musical ideas. But beyond this point the reconciliation of subjective expression with objective forms would not go. Beethoven in his last works transcended the limits to which form could be pushed while still retaining formal unity, by the power and greatness of his genius. There could be no further development in this direction. Composers who followed had to retain the old methods of giving formal (structural) unity; or seek a new kind of unity to give coherence to the growing tendency to subjective expressionism which is characteristic of music's later development.

Among all the social activities mentioned in this chapter the art of dancing is the most important in regard to its associations with music. To trace the origin or purpose of dancing is unnecessary. But there is no question as to the vital significance of the relationship between music and

dancing in the past. It is hardly possible to imagine that dancing ever existed without some primitive musical accompaniment, either in the form of a rhythmic outline, like the clapping of the hands or the stamping of the foot, or the noise made by striking two objects together, or actual vocalising, such as shouts at the critical points in the dance, or a sustained monotonous chanting.

But there is no need to trace back the history of music's association with dancing, or even to describe how music freed itself from this co-partnership and developed as a separate art, though retaining some marks of its early bondage.

I have enlarged upon the connection of music with all these early social activities only to indicate how these associations impart an aura of romance and an unconscious human significance to music today. Of all these mentioned, the close connection of music with dancing and the part music played in sexual selection are most important. How readily the experience of listening to music calls up dancing-associations shows most conspicuously in the experience of the listener who is compelled to respond to music of a decided rhythm by sympathetic movements (usually involuntary) of his body.<sup>(1)</sup> This is not only a direct and natural response to the rhythmic qualities of music regarded from the rhythmic aspect only (that is, significant in themselves, and discounting the dancing-associational significance), but it is also a response to rhythm from the secondary aspect of its dancing associations.

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(1) See Chapter V on "Rhythm."

It is perhaps a little far-fetched to dissociate the perception of rhythm qua rhythm from the recognition of rhythm's connection with dance-measures. Certainly this connection appears almost aggressively in any quick strongly rhythmic music, like the last movement of some Beethoven sonatas and symphonies (e.g. the Seventh.) In the latter example the whole musical experience is dominated by the regular beat of the rhythm.

The "dancing" associative element in music brings out most prominently music's social side. There is also the case of hunting, where the search for food is combined with many of the attributes of play. In modern times hunting became almost entirely a pastime. But music enters so slightly into hunting that the little social meaning music derived from hunting can be passed over. In dancing the play-instinct enters most prominently. Dancing and music are the two most social of the arts. But though music doubtless owes much in this regard to its alliance with dancing, music in itself is a social art. The very performance of works of any complexity demands the efforts of several instrument-players. The desire to make music is bound up with the desire to join with others in making music. Excellent authority <sup>(1)</sup> has it that nearly every little community in Scotland has its band of wind-instruments, or its choir of eager, if untrained, voices. And this was so

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(1) Sir John McEwen.

before wireless carried every kind of music into the farthest and most out-of-the-way corners. According to the same authority, the primary desire of these enthusiasts was to meet in social intercourse; and the practice and performance of music was held to afford one of the most suitable opportunities for this.

But though it is not unusual for such a group of performers to play to please themselves, they also like to share the music they make with an audience. Here again the social aspect crops up. What draws a great crowd together more than the desire to listen to good music? Those who claim that wireless or gramophone music is just as satisfying as, or even more satisfying than, concert-performances miss the importance of the bond of fellowship between the performers and the audience, on the one hand, and between each individual listener and all the rest of the body of listeners. "At any kind of concert unless the audience is actively co-operating with the performers the full significance of the music cannot possibly be brought out - the music, whatever it is, will remain only a technical performance."<sup>(1)</sup> The same writer continues - "aesthetic boredom always hovers close over either the dessicated or the condensed forms of music, because the human contacts are remote and precarious."<sup>(2)</sup> This heritage of fellowship or communal interest colours all true experience of listening,

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(1) Frank Howes, The Borderland of Music and Psychology, P.34.

(2) Idem. P.37.

though it may never be explicitly formulated. Music in the past has been bound up with the group, particularly in those cases where the subject assumes the double role of performer and listener, and this social element warms and enriches the musical experience.

Yet this "Social atmosphere" which Mr. Howes holds so vital to the true appreciation of music must not be allowed to encroach on the intellectual basis of the aesthetic experience of musical listening, and rob the latter of its intrinsic significance.

We must beware of mistaking the sympathy which we share with our fellow-listeners for more than it is, an emotional colouring of the mood in which we listen. The danger is that this element, depending on the gregariousness of human nature, should become too strong, so that interest or pleasure in it for its own sake should usurp the place of interest in the music.

There are indeed times when it is preferable to listen to a gramophone, or to go alone to a concert. Then the listener does not so much refuse to share his experience with a fellow-listener as show reluctance to submit to the friction of sharing his experience with the wrong kind of listener.

Human contacts had better be "remote and precarious" than inharmonious. Moreover while unsympathetic fellow-listeners may spoil an otherwise satisfying musical experience by putting

the listener out of tune, an over-sympathetic emotional relationship between listeners may also prevent complete aesthetic absorption. If fellow-listeners are connected by some warmer tie than the common wish for musical enjoyment, there is the danger that they will become too preoccupied with the human relationship to follow the musical relationships. Music is more likely to heighten an emotional attitude already existent, than to replace such an attitude by a purely musical state. One highly musical listener of my acquaintance confessed that she was unable to listen to music in company with her fiancé, though he also was a musician. The conflict between the two attitudes was too great.

The subject who prefers a first-class gramophone production to an inferior concert-rendering does not so much isolate himself from fellow-listeners as desire to hear music adequately performed without the intrusion of objectionable discrepancies. This particularly holds in the case of students who wish to extend their musical knowledge as to the "why" and "how" of music instead of being merely content to enjoy music superficially. This is my own case. I prefer a first-class reproduction of music on the gramophone to an unsatisfactory actual performance. More highly trained musicians, however, do not always set such store on the means by which the music is played. To them the music is the thing, and any discrepancies they are able to correct with the imagination. (Note how often composers

content themselves with bad pianos. The actual sounds are merely a means to embody their mental conception.)

But though I should by no means deny the importance of the social element in musical listening I do not think that the relationship between performer and audience is a manifestation of the "self-display" instinct, as my original authority suggested; rather is it a manifestation of fellow-feeling or sympathy. The experience of music as it exists in its highest form, composing, and to a lesser degree, in interpreting and listening, is the fruit of the instinct of "self-expression" which is directly associated with the instinct to create. Take as a simple example the child who wanders alone in the fields and sings his song of joy from pure lightness of heart at the beauty of his surroundings. He has no thought of audience. His is a spontaneous musical creation; perhaps not yet enjoyed by him from its aesthetic aspect. But there is no explanation of this spontaneous creative act in the fulfilment of the instinct for self-display. Thus when we listen to a good string quartet, or to a famous orchestra, unless we are critics or musical novices, we do not judge their music, or gape wonderingly at their execution; we tend to submerge all thought of ourselves as well as all thought of these others as making the music, in the music itself. Yet the being absorbed in the music is perhaps intensified by the unconscious feeling of being in sympathy with the performers, with fellow-listeners, and lastly, with the composer.

We thus see how important are the associations derived from the social aspects of music, especially with regard to love-making, dancing, and the performance of music itself. There is now a more intimate connection of music with life which cannot be passed over. The religious associative element in music is particularly significant, though the effect of religion on European music was ultimately a musical effect, for modern music bears little direct sign of its past religious associations. Yet it is hardly too much to affirm that without its long period of servitude to the church, European music would not have developed so richly in the direction it eventually took. It is here necessary to give a brief account of the history of music, which I have extended up to the present day.

In the later history of European countries the musical element in religion ran parallel for some centuries with the popular music of everyday life, without ever converging.

But such a clear line of demarcation between popular and religious music did not always exist. In the earliest acts of ritual, for example in the performance of certain sacrificial rites where living sacrifices were offered up to conciliate mysterious and awful gods, music of a kind accompanied the dramatic representation of actual events which formed part of the ritual. It was inevitable for those musical elements which were connected with the simple activities of daily life to be pressed into the service of religion where they took on a new and deeper significance.

But it was more particularly during the later development of music when the art was formally accepted as the handmaiden of the church, and when its connection with the everyday world was severed, that music received its most valuable religious association. This was also the time of its first establishment on an equal footing with the other arts, although it was still far from approaching what we today recognise as music.

In the seventh century "Gregory established music on lines borrowed from the Greeks" and "drew up a formula by which a future generation could work and advance the art."<sup>(1)</sup> Up to this time music had remained very nearly at the same stage it had reached five centuries before Christ. The Greeks had never recognised the possibilities of music as an independent art; and while they had investigated with considerable success the philosophic basis of the art, they had not attempted to turn their theoretical knowledge to practical purposes. They had noted the correspondence of certain qualities possessed by the different modes in use to certain aspects of life. But it is difficult to decide whether they recognised such correspondences to be due to intrinsic qualities in the order of each scale, or to be merely the result of arbitrarily imposing a certain aesthetic meaning on each of the various modes. In the latter case, it is easy to understand how, by constant use, different

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(1) William Wallace, THE THRESHOLD OF MUSIC, p. 57.

modes came to be familiarly associated with certain definite aspects of emotional life.

Certainly the very fact that music remained melodic, and its harmonic possibilities were never fully recognised, or at least never developed, shows that the Greeks were curiously blind to the aesthetic value of their scientific inquiries into the nature of sound combinations. An explanation of the non-development of the harmonic implications of music during this period may lie in the fact that the Greeks were too pre-occupied with sculpture and architecture to care about developing another art. Moreover the capacity to apprehend and follow music as we have come to know it was late in developing, seeming to depend on the gradual evolution of a new faculty of perceiving beauty in combinations of sound and rhythm then unguessed-at because the means of receiving them was non-existent.

If we turn from the music of the Greeks, to a consideration of music as it developed beneath the all-enveloping mantle of the Church of Rome up to the sixteenth century, we are equally amazed that such a high degree of beauty should be attained in an art hampered by so many formed restrictions. Once music was approved of by the Church and established on a fixed basis of aesthetic laws, the development of ecclesiastical music proceeded slowly but surely until it culminated in the great period of Palestrina. The end of the sixteenth century saw the crowning achievement of plain song, and the first epoch of music drew to

a glorious close. During this period the expression of music was confined mainly to the voice, and modern music bears the mark of its vocal origin in Church music to this day. Rhythmic development was at a minimum; the emphasis on vocalisation tended to expand pitch-development at the expense of rhythmic variation.

We know that music in the early Christian Church actually developed from the spoken words. Corresponding at first to the inflections of the voice, music soon began to assume a more complex structure. But though music made great progress aesthetically while in subjection to the Church, its character always remained affected by the exigencies of religious worship. Up to a comparatively late date, for instance, music retained a vagueness and an indefinite tonality which was no doubt an attempt to express infinity.<sup>(1)</sup> The lack of any definite rhythmic principle was well in accordance with the insistence on the vocal aspect of religious music. The entrance of a decided rhythmic interest would have been felt as contrary to the mystical idea of God, both because of the inherent restlessness of rhythm, and because rhythm was then characteristic of the music of secular life.

It is significant that only with the establishment of music on a basis of arbitrarily fixed laws, did the art rise

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(1) The return of the Roman Church to plain-song in place of the elaborate choral and concertised works of modern music is further evidence that the vague tonality of Church modes, and the continuous flow of contrapuntal rather than harmonic and rhythmic effects seem most fitting for religious worship.

to any great height of expressiveness. When Gregory borrowed and renamed incorrectly the old Greek modes for use in the Christian Church, he was paving the way for an expansion of music (always within the limits laid down) such as out-paced by far, in the short period of 750 years, all that had been musically achieved before that time. By its association with the religion of the Christian Church the luxuriant blossoming of modern European music has been made possible.<sup>(1)</sup> Wagner has even asserted that "the only music which, now at least, we can place on the same footing as the other arts is an exclusive product of Christianity." There is a parallel to this development of music within its restricted bonds in the fact that when the old modal systems of the sixteenth century were imperceptibly displaced by a new harmonic system, again the product of laws more or less arbitrarily fixed by a few experimentalists, we find music once more advancing rapidly and eclipsing all it had achieved before. This was the second stage in the development of the art as we now know it.

The laws of the harmonic system, less constraining than the rigid laws of plain-song, permitted an increasing freedom in the use of pitch-combinations. Rhythm, as we have seen, lagged behind; until the incorporation of popular dance music into church music helped to put music on a new rhythmical basis.

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(1) The evolution of a convenient system of musical notation was also the work of Church musicians. This helped on music's artistic development enormously.

The harmonic period culminated in the work of Beethoven. About him press the crowd of composers who lead up to and away from him. What the third epoch of music will be it is not easy to guess. Modern composers try their hands at all kinds of musical systems in an effort to formulate one which will have permanent aesthetic value. Atonality, polytonality, etc.; new rhythmical combinations in complex and barbaric rhythms have been essayed in turn. The tragedy is that, despite these tentative innovations, or rather, because of them, music now seems to be losing touch with popular taste. This may, however, be a "reculer pour mieux sauter". When at last a musical system is evolved which is capable of supporting renewed musical growth, by giving the art room to expand on new lines without carrying it too far ahead of the general musical understanding - then at last we may look for a third great period of musical fruition.

From this very brief survey of the progress of music throughout the last thousand or so years, it is apparent that in each case music rose to its zenith from a basis of artificially chosen and retained conditions. To achieve greatness as an art, music must be based upon some kind of formal system of aesthetic laws. In the past the successive systems used might almost be described as consciously and arbitrarily chosen ones, modified to a certain degree as the art developed. Though there is a basis of physiological fact it is not too much to claim that the aesthetic principles upon which the art rests are not

only the result of a gradual evolution, but also were in the first place based on principles adopted as a convenient starting point. There is, first of all, the modal system derived from the original Greek system, a mistaken adaptation of which was taken over bodily. Music conformed closely to the strictest rules throughout its development in the early Middle Ages. In the second period, the modern harmonic period, during which the greatest European music was composed, we find music based on an imperfect understanding of the natural (or physical) relationships of sounds. But the physical laws of sound-relationship are not even accurately conformed to, as the later adoption of equal temperament disregards the exact natural relationships of sounds. On the foundation of the acceptance of the internal relationship of the octave, the fifth, and less accurately, of the major common chord and all its harmonic implications, the principles of "key", and "key-relationship" were established. Further developments were made possible when the relationships between remote keys were made closer by the loosening of the strict natural relationship between all the notes within the key, following on the adoption of equal temperament.

What is chiefly remarkable is that the ear, while accepting the natural internal unity of the major common chord of just intonation as fundamentally complete and perfect, (the 3rd and 5th of this combination being natural harmonics of the root-note), should nevertheless be almost as completely satisfied by <sup>the</sup> slight perversion of this natural combination

which occurs in equal temperament. Moreover, when the just relationship really does occur in music (as in the music of stringed instruments) the ear still continues to recognise the purity of the pitch-relationship, its accuracy being unimpaired by the more usual inexact-relationship. The ear does not seem blunted by habit, but rather becomes more elastic. There seems to be a limit of adaptability within which the ear perceives approximate relationships between notes which vary very slightly from the perfect pitch. If this were not so, intervals on the piano would be intolerable to the ear trained to just intonation. Indeed, they are frequently unsatisfactory to the sensitive violinist though it is hard to believe that any ear is infallible. Since no instrument ever remains absolutely true such a refined perception would be in a perpetual state of dissatisfaction..

The ear, however, does not generally demand a perfect degree of accuracy in pitch-relationship. It contents itself with an approximation. It is probably just that slight variation from the normal which makes notes played in equal temperament more stimulating than notes played dead in tune. The little extra roughness - the clang arising from the combining and interfering beats of the vibrations of the overtones - gives a degree of difference to the absolute internal unity of a concord, for example, which may cause it to become more interesting and aesthetically pleasing than the perfect interval. A gifted amateur of my acquaintance confessed that she preferred intervals

played in equal temperament to intervals played in just intonation. The latter, she said, sounded dull and lifeless. Obviously such a preference would be partly determined by the system with which the subject was most familiar. A pianist would probably prefer equal temperament, a violinist just intonation.

But what, it may be queried, is the connection of equal temperament and just intonation with the associative element in music? Only this: we cannot hear music today without hearing it in terms of the inherited and accustomed background of tonality which has been gradually built up during the last three hundred years. Even where there has been definite and conscious attempts to evade the implications of tonality, and to write music in a new system, Debussy's whole tone scale, on Schönberg's dodecaphony, for example, these efforts have not been lastingly successful. The old tonalitive system had its root in the perception of the internal unity of the major common chord as it occurs according to natural law. To disregard entirely this fundamental natural relationship, and to set aside the traditional importance of the system in which all (or almost all) the great music of the last three hundred years has been written, is impossible. These considerations must always militate against the hasty adoption of any new musical system of pitch-relationship.

Yet a consideration of the gradual disuse of the old modal system, and of the completeness with which Church Music at length lost touch with popular taste, forces us to recognise

that the same thing may happen again.<sup>(1)</sup> It must, however, be the result of a slow evolution, and not be due to the arbitrary gesture of any one composer.

For the relation of music to every-day life is no longer the same as it was in the early days of music's development. Before the seventeenth century modal music was confined within the sacred precincts of the Church. Even had its practice not been thus rigidly excluded from common use there was little or no means of spreading it, or making it popularly known. With the rise of printing, and following on the establishment of the composer on a new footing of social independence (independence of the Church - independence of patronage did not come until much later) music became more popularly known. The aesthetic principles of the art were studied, and new ventures boldly attempted. Music had very little chance of developing spontaneously when existing music could only be studied and known through actual performance.

Today, with every means of familiarising new idioms and new styles - such as printing, wireless, gramophone and pianola - and also owing to the prominent place music is now taking in education, the backwardness with which such innovations as new pitch systems are accepted is largely due to inherent defects of the new music itself, as well as of the system in which it is written.

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(1) The music of this period has recently been revived owing to the efforts of certain musical scholars. But the performance of such music can only appeal to the cultured few who have had some training in the appreciation of music of this genre.

Yet if the adoption - or rather, the evolution - of a new system is necessary for the future development of the art of music; if, as some members of the modern schools claim, music can go no further in the direction it has been following; then music must indeed seek fresh fields. Then a musical system may emerge, simultaneously becoming a basis for the writing of great music of a universal significance. But this new system must have its roots in the old. the tonalitive system in which the works of such geniuses as Bach, Mozart, Beethoven, Schubert and Brahms, to mention only a few, were written, cannot be entirely discarded. The new system must reconcile itself with the old, or much that is priceless will be lost.

Up to the present century the development of music has been mainly in the direction of pitch. Music has progressed on harmonic lines. There is another way which the art of music can follow. The possibilities of rhythmic development have been only tentatively essayed. The pre-occupation of past musicians with the harmonic side of music has indeed tended to weaken the rhythmic element in music. To this cause has been attributed the gradual disintegration of the old musical forms which once gave music internal or structural coherence. As yet nothing has adequately replaced this internal unity of structure. The growing prominence of Programme Music seemed at first to have solved the problem. But as I have pointed out elsewhere, a programme is only a unity of external events superimposed upon the music. It cannot take the place of the vital formative

principle which must sustain music throughout its quickly vanishing life. The rhythmic element in music is a most vital quality. The perception of rhythm in music is not merely confined to a perception of a regular recurrent accent, and of variations within the grouping of the unit which makes up that accent. It is a perception extended to embrace the whole formal structure in time of a complete musical work. To attempt to replace this organic unity by the superficial external unity of a programme will not establish music on a new and stable aesthetic basis.

There are, nevertheless, possibilities in the direction of rhythm which could be tried. According to Mr. Adolf Weissmann, the rhythmic element is the more important of the two elements of pitch and rhythm in music.<sup>(1)</sup> Though it is perhaps arbitrary to assign a definite value to each of these elements separately, when they exist in music as an inseparable combination, nevertheless his meaning is clear. In rhythm he sees an expression of the will, of the power to achieve, and of the innate strength of man. Rhythm is purposive; it expresses the striving towards self-fulfilment which is the essence of life. Pitch, on the other hand, represents feeling <sup>the</sup> ~~-/~~ emotional development of man. Music in the past has been a development in refinement of feeling, a development towards a more and more specialised expression of sensibility. This is the natural explanation

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(1) Adolf Weissmann, THE PROBLEMS OF MODERN MUSIC, Chap. I: In this chapter on "Sense and Sensibility" Mr. Weissmann explains the defeat of classicism in music as being due to the over-emphasis laid on individualism and subjective expressionism - qualities which he thinks are characteristic of the music of the nineteenth century and onwards,

for the pre-occupation of musicians in the past with the harmonic side of music. It is the reason of the comparative neglect of the rhythmic possibilities of the art. In more recent years experiments in texture, intensity and quality, (that is, in all the dynamic aspects of pitch) have carried music towards the highest point as an expression of this intense discrimination of feeling.

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CHAPTER IX.

THE MUSICAL BACKGROUND.

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The most important associative element in any experience of musical listening is, paradoxical though it be, a musical associative value.

Chapter VIII dealt with the human associative elements, and the effect they have had on music's development. These elements are, in a sense, extra-musical, in so far as any art can be separated from its creator, man, in whom and for whom it originated; and from the activities in which he has employed it. The final section of Chapter VIII, however, touched on an historical aesthetic aspect which to some extent anticipated this chapter, where it is treated more fully and from a slightly different angle.

Music, unique among the arts, possesses a quality peculiar to itself - an inherent musicality or absolute musical meaning - which seems to exist entirely separate from and unconnected with any of the associative features I have just discussed. This absolute quality has value in itself, and, <sup>as</sup> I have attempted to show, it is a sufficient basis in itself for aesthetic enjoyment. In this respect, there is no parallel in the experience of painting, sculpture, architecture, literature, or even in its sister art, dancing. We do not speak of the fundamental "painting" value of painting; that is, painting regarded as possessing only an absolute value depending on the absolute

disposition of light and shade, colour and line, balance and contrast of masses. Though modern painting may claim that it is progressing towards this absolute goal of formal beauty, painting remains fundamentally a representative art. The same holds of sculpture. Architecture, though dealing with harmonious balancing of lines and masses, cannot be considered in the same class as music, as its end is utilitarian. Nevertheless the similarity between the formal aspect of this art and music has received much attention from aestheticians. Dancing is both expressionistic (representative in a special sense), and representative; for it is usually allied with miming. But there is also something of this absolute value present in classical dancing. The formal element in dancing owes its presence, most probably, to the close natural alliance between dancing and music; when the formal element of music is taken over into the other art. (1) Thus dancing possesses, in a slight degree an absolute plastic significance akin to the absolute musical significance of music. But the modern emphasis on the purely formal qualities of painting and sculpture is a departure from the nature of these two arts as they have been understood during centuries of artistic production. Representative qualities must enter into the great works of sculpture and painting as vital elements of organic form and technique.

A great work of sculpture or painting is a perfect (or as

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(1) Dance and song early mingled. In their constant association the ultimate structure of all music may be found.

nearly perfect as is compatible with the limitations of two such opposing elements) union of these formal (or non-representative) qualities and the representative qualities. But in music the question of representation does not arise, or only as a subsidiary problem. Extra-musical qualities need not enter into the greatest works of music; or if they do, it is not by them that the work is judged or enjoyed from the musical aesthetic standpoint. The significance of a great work of music depends primarily on its beauty as a formal whole, on the value of its absolute quality of musicality. Thus it is the formal elements which make up the fundamental nature of music. Music is presentative; and its meaning and beauty are purely formal values. The art of music possesses an absolute meaning and value which can only be understood in musical (i.e. formal or absolute) terms. It is, however, never a static or a non-progressive meaning. Music possesses progressive value because the absolute value of musical terms varies from generation to generation with each span of music's development.

Music thus possesses a traditional or associative meaning of its own, which is continually being enriched. This enrichment of the musical associative value of music is due to the expansion or pushing forward of the formal limitations of music; and goes hand in hand with an increasing receptivity in the musician and listener which develops as they keep pace with it or go beyond it.

All experience of music, as has been observed in the single case of listening, depends on the presence in the individual of certain faculties by means of which he interprets this traditional musical meaning in musical terms. These faculties are both inherited and acquired. They are "acquired" in so far as those particular perceptive powers employed in following music are developed and extended by training and practice - that is, by further organised experience. But a certain musical predisposition must be latent in the individual, for training alone does not make a musician or the musical listener; although, on the other hand, the presence of such merely physiological aptitudes as an accurate musical ear and a good sense of rhythm, etc., does not mean that the individual is inevitably "musical".<sup>(1)</sup> He may possess the means to understand music but lack the desire to do so. For him the "musicality" of music may possess no value or significance at all, though he is capable of grasping formal details like pitch-outline or rhythmic variation. But though physiological aptitudes do not always imply "musicianship" they are usually present in the musically talented. In the

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(1) How many people are there able to play the piano by ear, or to catch a popular tune and harmonise it readily in any key on the piano without ever having had a lesson, who are yet not in the slightest degree "musical" in the aesthetic sense. Such superficially musical types are usually unutterably bored by any serious musical work.

composer, above all, they often occur in remarkable strength. Both training and experience, however, are needed to develop the inherited faculties or the innate predispositions which are typical of the musician in the broadest sense. He often requires only the minimum of practice and direction to obtain working perfection. In Mozart we have the familiar outstanding example of the rapid training and organisation of inherited faculties whereby he reached a high degree of musical skill and efficiency in an incredibly short time. (1)

Foremost among the so-called musical faculties are the power of pitch-perception, the perception of rhythmic variation, and the discrimination, recognition and (particularly as regards composing) the synthesising of these relationships in their extended forms into the formal whole which is the complete work of art. There is also the power of correctly recognising the quality of musical sounds - but this depends on the power of

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(1) At the age of four Mozart wrote a Concerto for the piano, so difficult that his father objected no one could play it. The infant Mozart immediately sat down and performed it with amazing skill considering the physical limitations of his hands. There is also another story which relates how Mozart, aged six, played the second violin in a trio by Wentzl at sight, although he had never received a single violin-lesson. (Ebenezer Prout. Mozart. Bell's Miniature Series P.p. 2 & 4.)

These two anecdotes point to a musical aptitude extraordinary in so young a child. It can only be tentatively explained by the theory of an inherited bias. Mozart was born with the channels through which musical skill is directed and musical perceptions are given value, ready-made. Only the slightest amount of exercise and training was necessary for these faculties to function accurately and maturely.

pitch-perception carried to a more specialised degree. All these powers whose functioning is discussed in detail elsewhere, have a physiological basis. They depend on a natural aptitude or bodily disposition. The faculty of pitch-perception, for example, depends on the physiological structure of the ear. Though this faculty may be trained so that more and more obscure pitch-relationships may be recognised, there are definite physiological limits to the ear beyond which training cannot go. Training, however, is most effective in the years before the age of fifteen or sixteen, when there seems to be a certain plasticity, both as regards aural capacity - with respect to increasing habits of pitch-perception - and as regards the developing of manipulative skill. In most talented types the efficiency of each of these two capacities increases pari passu with that of the other.

But though the structure of the ear may present an insurmountable barrier, the brain can eke out the limited resources of the ear by directing these in order to use them most effectually. A musician, for example, need not possess a sense of absolute pitch in order to compose. By habitual listening he may become so familiar with certain intervals as to approximate to having a sense of absolute pitch. There are, however, cases of competent musicians who cannot even sing in tune, though they are able to recognise and employ pitch-relationships correctly. (Such cases are more likely to be due a lack of correlation between the vocal chords and the brain, than to a defective

faculty of pitch-perception). On the other hand, to emphasize the point I have already made, the possession of such purely physiological aptitudes - as a sense of absolute pitch, a flexibility and accuracy of muscular movement giving skill in playing an instrument, or the power of producing beautiful singing notes, or even the more developed faculty of playing and transposing correctly by ear - the possession of these alone will not suffice to make the musician. Without the power of co-ordinating these things, and of directing them towards a musical end, in themselves they are nothing. There have been many musicians who were poor executants; though most composers, even the least technically skilled, have been able to interpret their own music, sometimes with greater facility in technically difficult passages than the virtuoso performer. There is the exception of Wagner who was master of no single instrument. (1)

Though the musical faculties - those perceptive powers on whose accurate functioning depends all true experience of music - start from this general basis of physiological aptitudes or dispositions, they have become both modified and extended throughout the generations of musical experience of the race. They are, today, the complex products of the training of the memory and of the association and the habit centres. (2) The development of

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- (1) The concession that Wagner used the orchestra as an instrument does not alter the fact that he possessed little of that muscular skill and dexterity which usually marks the musician.
- (2) We see such change and development in the advance of harmony. Among the Greeks the consonance of certain intervals was

Footnote Continued

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recognised but not used in their music. The first intervals to be employed in music were the most perfect consonant intervals - fifths and fourths. Centuries elapsed before sixths and thirds were felt as tolerable. Such an expansion of the aural capacity was due both to physiological and to psychological causes. Finally intellectual processes played an enormous part in the development of the musical faculty, as an inevitable result of the demands of artistic composition and production.

"It is as if harmony - the higher intellectual faculty in music - began with the first glimmerings of modern mental development and grew more and more elaborate and comprehensive, and more adapted to high degrees of expression and design, simultaneously with the growth of men's intellectual powers." (Parry, Evolution of the Art of Music, P.84.)

the faculty of pitch-perception which resulted in the modern listener being able to understand ordinary discords, and, helped by familiarity, to tolerate them, and even to enjoy them because of their relative harmonic-value, has been a long process, and was not achieved in the life-time of a single individual. Mr. William Wallace contends indeed that the auditory apparatus is probably only in process of an unfinished evolution. (1) Our acceptance of discords today is the cumulative result of a series of changes and adaptations of the ear under the direction of the brain, resulting in what was once physiologically unbearable or disagreeable becoming at first non-exciting, and then interesting and agreeable. Although, in a single individual, the familiarity of repetition may blunt the angularity of extreme dissonances, it must be remembered that the understanding and enjoyment of the same dissonant progression at a higher level than the purely sensory is due to more than just familiarity. True appreciation of the artistic purpose of such a progression is due to an implicit understanding of the essential harmonic relationship existing behind the dissonant relationships. Though a particular progression may never have been directly anticipated in musical history, and so have no basis of familiarity ready to hand, yet the gradual widening in the past of the receptivity of the musical ear, and thence of the musical understanding, permits it to

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(1) William Wallace, The Threshold of Music, P.203 ff.

be easily assimilated. We see the same principle working in the music-lover brought up in the classical tradition who listens for the first time to an extreme modern work. A little familiarity with the idioms of modern music often turns him into an ardent partisan. But such a result is not only due to the effect of familiarity. His understanding of the complex relationships of modern music is mainly the fruit of the years of race-experience of music, which is his natural heritage.

A discordant progression like the passage for brass at the end of the funeral march in Strauss' "Helen of Troy" might sound excruciating to him at a first hearing, but it would not remain so for long. He would soon be able to follow and enjoy the significance of the component parts, and even perceive exact relationships beneath the inexact. But imagine how this passage would have sounded to Palestrina, or even to Mozart. To both it would be hideous and unintelligible. It is unlikely that their opinion would change after frequent repetitions of the same passage, for the musical background necessary to the understanding of such a passage had not begun to be evolved.

Thus, in order to follow with understanding such modern works as Elgar's "Second Symphony", Delius's "String Quartet," Prokofieff's "Violin Concerto", Sibelius's "Seventh Symphony," or Scriabine's piano works, what centuries of musical effort

and striving have gone in the past to achieve receptivity in the modern listener! And how many years of the listener's own life-time have been spent in training and in listening to music, in order to make use of this inherited background!

But though the capacity of the ear to receive and find tolerable musical combinations of increasing complexity, has developed amazingly, this development reveals at once an advance and a retrogression. The receptivity of the ear has indeed been extended to embrace more and more dissonant combinations. For example, many intervals once regarded as dissonant are now felt as consonant, even if they are not explicitly termed such. <sup>(1)</sup> But this augmentation of the scope of aural perception has been the cause of the loss of the more delicate powers of pitch-discrimination. The subtle variations in pitch, and pitch-combination which satisfied the demands for artistic balance and contrast in the music of Palestrina's day, have no significance in modern music. Their effect would not be felt, even if they were used for this end.

Our inheritance of rhythms and rhythmic combinations and variations is not, as we have seen, so important as our developing heritage of pitch-relationships. This is due to the fact that rhythmic development has given prior place to pitch-development in the past. Little advance in the rhythmic side of music has been made since the time when the rhythmic music of plain-song was leavened by the rhythmic

(1) e.g. like the chord  which ends the First Act of Debussy's "Pélléas et Mélisande."

dance-music of popular taste. Certain new rhythmic groupings having arisen, such as an occasional use of quintuple time, and a seven-pulse bar. But until recently rhythmic complexity did not go much farther than this. The modern irregular bar-grouping, where bars of  $\frac{2}{4}$ ,  $\frac{6}{8}$ ,  $\frac{3}{4}$ ,  $\frac{5}{4}$  and  $\frac{4}{4}$  may follow one another in the same work, is a revolt from the regular recurrent accentual system of classical music. Greater prominence has also been given to the interplay of contrasting rhythms. This feature we find most conspicuously in the music of Brahms, who frequently used a combination of duple against triple rhythm.

With regard to the formal element in music - the extension of the rhythmic unit in conjunction with progressive pitch-relationship into musical form - there has been even less progress than in rhythmic development. The old forms have been so extended that they have become fundamentally weakened and have lost all organic unity of form. Non-musical elements, such as a title, or a literary or poetic unity, or a mood-unity which embraces contrasting emotions, have been utilised in order to confer unity and coherence on music which is no longer held together by the bonds of organic form. Without such external unity of form much modern music would consist of a series of musical ideas loosely strung together, and receiving a pretence of coherence by means of modulatory or textural or repetitive treatment. Notwithstanding the fact that there has been little progress in rhythmic or formal development in music, the understanding

of the significance of these elements is just as much due to an inherited power of perception as is that of pitch-relationship.

Music, to be coherently followed, must be interpreted in musical terms alone; the meaning of which is understood both by means of implicit reference to the inherited background of past musical experience, and with reference to the subject's own background of musical experience. That is, all musical experience can only be interpreted in musical terms which possess both a traditional musical meaning and value, and also a personal meaning and value attributable to the subject's own interpretation of their traditional value. Thus the full value of music is only realised by the subject with a basis of inherited dispositions, and a plasticity of response to music, who is trained to grasp musical relationships and whose familiarity with music is very great. Each successive musical part is significant to such a listener only in so far as he is capable of interpreting it in terms of his own musical background, and thus indirectly in terms of all music which has led up to that background. This is the musical associative significance of music. <sup>(1)</sup> Musical associative value depends as much on

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(1) It is interesting to compare the musical associative value of certain chords and progressions with the literary associative value of words and phrases used in great literature. A single word like "gleam", "mellow", "light", etc., may convey a far richer poetic meaning to one reader than to another. Words gather to themselves associations which cling and grow through

Footnote Continued.

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centuries of poetic everyday usage. Their literary "allusiveness", however, cannot be adequately appreciated by the uncultured or ill-read person, just as the musical associative value of certain musical progressions conveys little to the musically inexperienced listener.

(The Japanese poets were supreme exponents of the art of literary "allusiveness." See also the modern poet T. S. Eliot.)

the receptivity of the listener as it does on the music itself. The subject's musical background, as we saw in the case of Mozart, may not always be wholly acquired in his own life-time. But this background depends as much on the influence of training and environment as it does on natural capacity. Training may be consciously directed, as in the case of the student of music, or it may be unconsciously acquired, as in the case of the layman who is a natural music-lover. A musical environment is often all that is needed to develop a fair degree of musical taste and culture provided that there is a basic musical aptitude.

The illustrations used in Chapter III may be used again in an examination as to how readily the naturally musical child and the unmusical child respectively respond to the musical associative value or the traditional significance of certain well-known progressions. The perfect cadence is generally accepted as being musically significant of repose, finality, equilibrium, and so on. From its effect on the above two types it may be possible to draw conclusions as to how far this impression of finality is traditionally derived, and how far it is intrinsic to the progression of dominant to tonic.

In the case of the musical child the significance of this progression seemed to be immediately recognised. She showed satisfaction when the final chord was played. When the dominant chord was left unresolved and she was asked whether she would be content to run away and play with the sound of this in her

ears she said, "No. I should like it to go like this," and hummed the tonic. In the other case there was no evidence of interest in the progression. There was no immediate response at all. The types tested showed no preference for this relationship or for a more dissonant one of two unrelated discords. In some cases the musical meaning of the perfect cadence, the desire to sing "doh" after "ti" was only reached after some months' training.

It was, however, impossible to draw more than a tentative conclusion from the test. Even in the life-time of a child of four (the youngest child's musical development was watched from eight months) there have been many opportunities of hearing this progression and thus building up an unconscious musical associative background about it. Children hear the same cadence many times at the end of musical phrases of varying character. They therefore come unconsciously to associate this particular progression with the end of a tune. This impression of finality the unmusical child understands simply as a natural happening, and not as a specifically musical happening. The feeling of finality and relaxation which follows the cadential resolution is a fact of physiological experience. The musical child is likely to give such a relationship musical value long before the unmusical child. The accounts of the precocity of musical prodigies as well as the quickness of those children who became musicians in their maturity almost always reveal such a faculty for grasping the fundamental significance of

music. In fact their own understanding of the musical implications of music is often so unquestioningly taken for granted by themselves that they do not understand the stupidity of the untalented.

The recognition of rhythmic relationship by the same types was on a line with the case of pitch-relationship. The unmusical child revealed backwardness in recognising and formulating a triple rhythm. One child insisted on playing a simple exercise in  $\frac{3}{4}$  as  $\frac{4}{4}$ , giving double value to the last beat in every bar. Her first attempts to beat time to a three-rhythm were unsuccessful. Only by a great deal of practice in tapping with the foot and then beating time energetically with the arms did she grasp the three-rhythmic grouping. The musical child, on the other hand, was quick to grasp rhythmic patterns almost as soon as they were heard. There were occasional moments of stupidity which were surprising considering the general quickness to grasp rhythmic patterns.

The conclusion reached in a succession of such experiments suggested that the grasp of musical relationships occurs most readily and spontaneously in definitely "musical" children; while it had to be "taught" to the non-musical child. But quickness in this direction did not always mean good musical taste; this was mainly determined by the "musical milieu" in which the child was brought up. Thus the grasp of musical relationships seemed to depend on the presence of a natural or

inherited aptitude plus the facility due to habitual experience of music or to directed training. The musical faculty would seem to be one which can be passed on through successive generations, in each of which it may be brought to a higher stage of organisation or perfect functioning. The Bach family is the example par excellence of this. In these cases, like that of Mozart, musical skill had only to be slightly acquired or practised. In the ordinary individuals skill (not merely manipulative skill) must be developed. The history of the development through practice and experience of the musical faculty in this second type of individual epitomises the development of the musical faculty in the race. As with the backward child, musical aptitude is slow to develop at first, but each successive generation inherits a richer musical tradition, and a more highly specialised faculty to interpret it. The development of the physiological factors which are the basis of the musical aptitudes or dispositions, like the power of pitch-perception, and the intuitive grasp of rhythmic relationship, etc., becomes more highly developed and specialised in their work as music advances. Thus when a Mozart is born with a musical faculty developed for perfect functioning, he is also endowed with a skill which needs the minimum of exercise in order to reach the maximum musical attainment.

I may sum up the conclusions reached in this chapter in the following way: All musical experience depends on a faculty or group of faculties which is partly the result of an

inherited disposition and partly the result of the training and exercise of that natural disposition. Exercise and training need not be consciously directed, but may operate unconsciously through frequent hearing of music. Any musical experience is the experience of the traditional musical implication of the art of music. It is thus an experience of a constantly changing and developing art, which nevertheless is rooted on a certain basis of physiological fact. A scrutiny of the two main periods of European music during the last five hundred years reveals that in each case music rose from its beginning on an artificially chosen system of physical relationships to supreme heights of artistic development without ever completely losing touch with the conventions which controlled it at the beginning. <sup>(1)</sup> In the first of these two periods musical conventions were based on a misconception of the old Greek modes. On this foundation of artificially formulated aesthetic laws rose the art of Church or modal music which attained a high degree of beauty. In the second period a harmonic system was evolved based on the physical laws of pitch-relationship. The aesthetic principles underlying the music of this period were evolved from the recognition of the naturally

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(1) The basis of all musical scales is fundamentally the same - a note and its octave, and later its fifth. From this combination the pentatonic scale early evolved - this is the scale-basis of all folk-song. The power of associating certain notes together in a permanent relationship reveals a progressive musical evolution which expanded differently from the same basis in different races. But though these scales are thus to some degree arbitrary, scale associations are thus stamped on all music, owing to the identical nature of their fundamental basis.

occurring relationships of the harmonic series. That the development of music from this beginning tended towards expanding and modifying the natural relationships of just intonation into the compromise of equal temperament is only another indication of the artificiality of the conventions on which modern music is based.

It is difficult to reconcile the fact that the basic aesthetic principles of modern music are derived from the fundamental relationships of the harmonic series, with the realisation of how imperfectly this ideal of natural relationship has actually been carried out owing to the expansion of just intonation into equal temperament, the faulty and ineffectual musical perceptions of the majority of individuals, the limitations of interpretive skill, and the imperfect pitch-reproduction of instruments.

Nevertheless the fundamental principle of modern music remains the major common chord as it occurs in the natural harmonic series. This is the basic principle of all music after the sixteenth century. All other harmonic relationships developed from this fundamental relationship. It is no matter that the original relationship rarely is found in its absolute form. Training and familiarity have accustomed the readily adaptable human ear to accept the imperfect relationship as an approximation to the perfect relationship. From thence it is hypothetically possible that by a gradual progression all

possible pitch-relationships may be accepted as aesthetically suitable for inclusion in music.

From a consideration of the above facts it may be concluded that a musical faculty is being slowly evolved which at once grasps all the musical associative values of music throughout its past development, and at the same time enriches the common musical background; whence it pushes on to create new musical values and new musical meanings.

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CHAPTER X.

MUSIC AND NATURE.

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Though musical sounds and rhythmical noises and motions as they occur in the world of nature have undoubtedly left their mark on music, the associative meaning which music derives from this source is not nearly so valuable as that emotional significance with which music is enriched as the result of its close connection with human life. The latter aspect was the subject of Chapter VIII. I now propose to discuss briefly those aspects of the natural world, here excluding man, of which reflections may be found in music; and to describe how far they affect the ordinary listener. We shall see how easy it is for an art whose medium depends on a system of physical phenomena to be connected with the non-musical occurrence of these physical phenomena in the world of nature.

It is first necessary to distinguish between the terms "associative" and "imitative". While the "human element" in music occurs mainly as an incidental associative value,<sup>(1)</sup> the elements in music reminiscent of the natural world have most often direct imitative value. Nevertheless music derives some associative significance from nature, though this cannot always be dissociated from the effect of mere imitation. Beethoven

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(1) There are of course innumerable examples of "human representation" in music, such as Strauss's "Domestic Symphony"; and many of his other symphonic Poems. A great deal of music may also be interpreted as absolute or as representative, - e.g. Beethoven's Fifth Symphony, the Overture to Coriolanus, etc.

himself described the Pastoral Symphony as "more an expression of the emotions than painting"; and apart from the obvious imitation of bird-calls in the Second Movement, the recurrent murmuring figure of the brook in the same movement, and the realistic thunderstorm in the last movement, the work is still indescribably pastoral in flavour. But the frankly imitative features can only be approximations to the real thing. No brook, however melodious it may be, moves in sound by regular musical intervals. Nor does it conform, or only slightly or accidentally, to a pattern of rhythm.

The occurrence of musical sounds and rhythms in nature is a haphazard occurrence. There is no directive principle. When man possesses himself of the natural phenomena of sounds and rhythmic movements he proceeds to form them according to some regulative principle or law. In art he uses them aesthetically. Sounds and rhythms are directed to an end, but not an extrinsic end, like the song of birds or the call of animals in mating. The end in view is intrinsic to the music produced. Man delights in an ordered pattern of sounds in time for its own sake, and works to achieve something which is beautiful and significant in itself. There is no real music in nature. It is claimed that the blackbird, to take one example, creates real music, and delights in his song for the sake of its artistry, but we cannot accept this as evidence. Miss Katharine Wilson believes that there does exist a music in Nature.<sup>(1)</sup> In refutation of Wallaschek's statement in his work "Primitive Music" that "even

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(1) Katharine M. Wilson, SOUND AND MEANING IN ENGLISH POETRY. p. 283.

animals recognise and utter intervals but cannot make any intelligent use of them because they do not understand rhythmic arrangement", Miss Wilson claims that this is not borne out by the facts of nature. Bird songs do possess decided rhythms, she avers; and she quotes several black-bird catches in illustration. But the fact that we can recognise decided rhythms in these calls does not mean that the bird itself understands them rhythmically, or that it is making intelligent use of such rhythms. For the same reason, because birds (and all animals in general) sing in just intonation, this does not mean that they understand the nature of intervals and are able consciously to use them for a desired artistic effect. Miss Wilson relates how a black-bird may be shamed by mocking his attempts to practise his song before he has got the intervals perfect. She also claims that animals recognise and respond to our music. There is no need to query these statements; but it is difficult to see how they prove that animals make intelligent use of pitch-relationships and rhythms. Because animals practise incorrect intervals they need not discriminate between correct and incorrect relationships. The practising until the right interval is achieved may simply be the instinctive method of exercising the vocal organs, - a strengthening and training of the physical means whereby the bird eventually comes automatically to produce the true interval. Miss Wilson does not mention whether the blackbird practises the rhythmical arrangements of his notes. Indeed there is little actual rhythmic variation in his song, which is mostly limited to a few stereotyped

phrases. Even where he does extend his phrase, it is only within exceedingly narrow limits. Several phrases are not contrasted and developed to form an artistic unity as we find phrases developed in real music. The bird itself is probably not conscious of the rhythmic implications of his song, and it is we ourselves who find it rhythmic.

It is a well-known fact that animals respond readily to human music.<sup>(1)</sup> But Miss Wilson does not indicate what are the special qualities of our music to which animals respond, beyond stating that their ears are often peculiarly sensitive to notes of high pitch.<sup>(2)</sup>

When animals respond to, or seem to enjoy music we must not suppose that their experience is anything like our experience of the same music. The qualities in the music which appeal to them are very probably those which possess the least aesthetic interest for us.

Animals do not follow the formal beauty of music, or perceive the intricate pitch and rhythmic arrangements which make up

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(1) My own cocker-spaniel actually howls in tune with the piano or the gramophone or my voice, showing particular dislike for high, shrill notes. His howls seem, however, more an expression of sympathy with what he believes is my pain and suffering than a sign of musical enjoyment! If I go on playing or singing, he jumps onto my lap and puts his paws firmly on the keyboard in order to stop me effectively.

(2) Cf. My Dog and Helmholtz, Sensations of Tone. p. 169

the simplest tune. If a normal human subject needs a complex musical education in order coherently to follow any major musical work is it likely that a dog or a cat or any other animal can have any conception of what the music is about? Animals may recognise a few obvious dynamic or physiologically affecting qualities such as timbre, degree of intensity, pace, and height or depth of pitch. They are impressed by music as a physical phenomenon, and not by music as an artistic production.

Thus animals cannot be credited with the power of producing anything which is fundamentally akin to music. The musical calls of birds, and the like, bear a superficial resemblance to music, but they cannot be classed with music as they are not the ordered conception of an individual mind (or of a group of minds). Music in nature occurs as a physical manifestation, and not as an artistic production. It is therefore as physical phenomena that such sounds are incorporated into music in the cases already quoted. That the nightingale trills in triplets is no artistic justification of its song. Nor will this fact give any musical value to its inclusion in Beethoven's Pastoral Symphony.<sup>(1)</sup> The traditional rendering of trills in Bach's period is in threes, but it would be absurd to suggest that this was due to the occurrence of the same device in nature.

Though such obviously imitative effects do occur in music, the more indirect method of suggesting sounds and moods of nature has affected the development of music as an art to a far greater

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(1) Respighi actually uses the gramophone-reproduction of a nightingale's song in his "Pines of Rome" !

extent. The modern impressionistic school of music seems to have developed from the preoccupation of musicians with the suggestions of nature, and the emotions aroused by the contemplation of nature. Impressionistic music, which with programme music may be classed under the general head of representative music, is more suggestive than imitative. Nevertheless it relies for its beauty on achieving pictorial effects in sound. In many cases, however, the effect of suggestion is so vague and indefinite, as for example, in certain works of Delius, that it is hard to make any distinction between this type of music and so-called absolute music. I recall in particular the slow movement of 'Delius' String Quartet which seems to me peculiarly reminiscent of the English countryside. Yet though this atmosphere is indefinably present, it would be hard to lay the finger on any one spot and say "This musical device suggests such and such an aspect of nature." The whole movement, as well as Delius' "On Hearing the First Cuckoo in Spring" (discounting of course the obvious cuckoo-call) seems to me to be imbued with this pastoral flavour. It is not due to mere imitation, though certain imitative effects may be discovered in the music. It is a presentation in musical terms of the same kind of emotional mood which is aroused by the contemplative enjoyment of nature.

Both Dr. Vernon Lee and Mr. Frank Howes explain this recaptured emotional mood by M. Ribot's theory of emotional memory. (1)

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(1) Dr. Vernon Lee, Music and its Lovers, pp. 77 et seq.  
 Frank Howes, The Borderland of Music and Psychology, p.46,  
 p.72.

I have dealt fully with this emotional aspect in Chapter XI.

By the use of merely general musical effects, such as pace (notice the ebb and flow of sound in "The First Cuckoo"), tone-colour, and his own individual musical idiom (which conforms to no particular key-system) Delius infuses his music with an indefinable sense of the beauty and calm of nature. In the slow movement there is not even such a definite effect as that of the wind rustling through the trees, which occurs in "The First Cuckoo". This latter effect is more easily recognised because of the suggestiveness of the title.

Recalling my first experience of listening to this quartet, I remember how much the beauty of the slow movement impressed me. Without having seen a programme, and therefore ignorant of the fact that this movement was entitled "Late Swallows" by the composer, I spontaneously evoked a picture of a certain open field in the north of England, where I had often wandered alone in the late afternoon. I particularly recalled the wheeling and circling of the swallows (my first sight of English swallows was in this field), and heard again in fancy their strange mournful cry. Was this coincidence only? On a second hearing, this time with a programme, I again felt the same parallel between the music and the English scene first evoked. But because the musical interest of the work was now much greater, owing to the greater ease with which I followed Delius' individual style, I paid less attention to this imaginative trend. . . . Never having seen the score, I am unable to say whether there are any particular imitative effects

capable of suggesting such a definite picture.<sup>(1)</sup>

A second case where the powerful "nature" associative element in Delius' music was recognised, might be mentioned here. The subject was a woman-traveller on a long sea-voyage, of no musical training, and little musical taste. She possessed a gramophone record of Delius' "On Hearing the First Cuckoo in Spring" which she played frequently. She admitted that she liked it because she was able to imagine, while listening to it, that she was sauntering on her pony through the Sussex woods near her home. The title of this work is certainly suggestive of English woods, and the music has exquisitely caught up the breathing melody of wind playing through the trees. But that she should choose a work musically so obscure in style, and only indirectly imitative suggests that there must be a definite connection between the mood evoked by the music and that which accompanied her ramble on horse-back.

This subtle sense of the beauty of nature which is present in much of Delius' music is atmospheric rather than pictorial. There is also a similar idyllic atmosphere in the music of other composers of the modern school. The first of Respighi's "Three Botticellian Pictures" is a case in point. The pastoral flavour of this movement is possibly achieved by the predominance of wood-wind effects.<sup>(2)</sup> First a well-known Tuscan air, dating from

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(1) A young Australian composer criticised this movement later, and found it strongly imbued with a negro element !

(2) See Appendix A - Note 1.

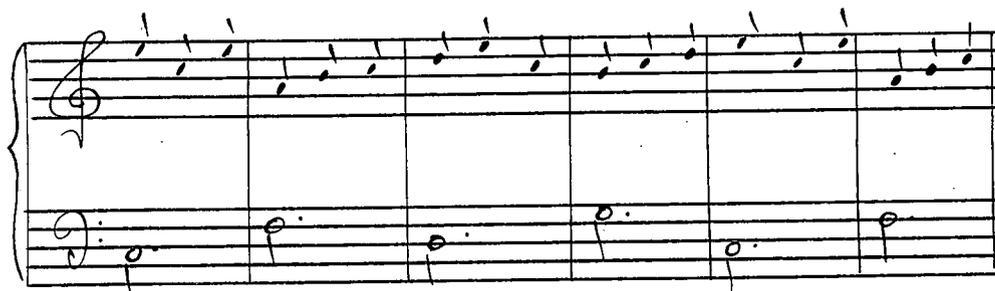
the fourteenth century, is given to the bassoon. Later the woodwind play a charming melody, "Ecco il Messia", a fifteenth century madrigal composed by Lucrezia de Medici. In the movement, "The Birth of Venus" there is definite imitation. In the opening section a figure on the strings suggests the lapping of waves. But the broad and flowing melody, heard first on the 'cello against this background and which rises to a glowing climax, has no imitative significance.

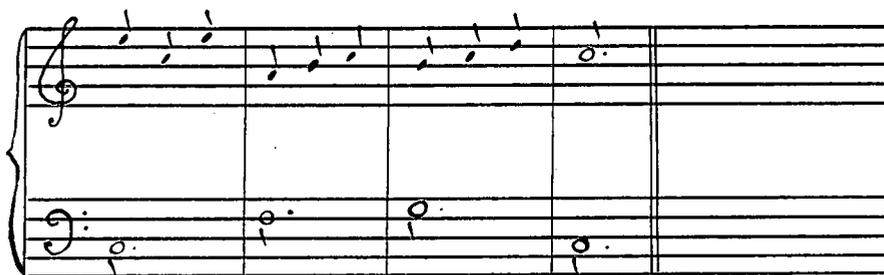
There is even less of imitation in the music of Debussy. In "L'Après midi d'un Faune" there is practically nothing of direct representation; yet the warm luscious spirit of paganism is subtly present. In his opera "Pelléas et Mélisande" there are many passages suggestive of nature associations, though there is hardly any direct representation. Among others I particularly recall the flutter of the doves in one scene from this opera. These examples I have quoted merely serve to show how difficult it often is to draw the line between programme music and absolute music, particularly in the case of modern music. Moreover, the associations evoked by such impressionistic music are the result of a number of imperceptible effects, none of which can be claimed as directly imitative.

Some explanation of this implicit association with nature might be found in the fact that nature and music have a common link because certain aspects of sound and rhythm occur in both. This point I have already stressed. Among the sounds and movements in nature which most nearly approach to music, are first the bird-calls, which we have considered; then the sounds and calls of

animals. There are also the sounds of inanimate nature - the movement of water, for example, which is the most familiar occasion of musical noise in nature, surpassing in importance the sound of the wind. Both wind and water-effects occur in music, both by means of obvious imitation, and also more elusively, as I have attempted to explain. Take the children's piece "On the Lake", from Walter Carroll's "Scenes at a Farm". This fragment is not directly pictorial, but because of its calm smooth-flowing melody, the placidity of which is enhanced by the absence of any striking rhythmic effects, (each bar containing three flowing crotchets) it is aptly enough named.

Should we substitute another title of a similar general meaning such as "Ripples on the Shore", "Swinging", or "The Wind in the Trees", we may see that none of these fits quite so well. Yet there is not a single actual point of resemblance between these sixteen bars and the skimming of a boat over a smooth lake surface. Nevertheless we feel it is not a river, for example, for there is little sense of progression in the theme which turns on itself again and again.





The following theme might do to express the peaceful onward flow of a river, though there is only a certain dynamic association because the melody is smooth and moves mainly in conjunct motion.



Here there is a continual progression; though bar (2) is reminiscent of bar (1) the melody pushes forward, moving, with one exception, by steps of a single degree of the scale. The feminine cadence at the end has also a particularly smooth and flowing effect. The fragment, which is reminiscent of Mozart, need not, however, be felt as expressive of anything but its own musicalness to be enjoyed.

Thus we see that the "nature" associative value we recognise in music can be reduced to terms of musical devices which suggest a certain dynamic parallel in nature. No river, for example, moves in sound by true intervals, or with a regular musical rhythm. Yet if we did wish to suggest the flow of a river in music we should probably employ such devices as conjunct motion and smooth rhythm. It is not likely that such a cascade-like theme as the following:-



Beethoven Op. 53  
(Waldstein)

would be used to suggest a river.

The associative meaning and value which music derives from nature may possibly be due to the desire to grasp music in extra-musical terms. The ordinary listener seeks to find in nature parallels of the sound-groupings he hears in music. Later the process is reversed, and instead of interpreting music in terms of nature, the musician seeks to represent natural sounds in music by means of the technique of parallelism which he has thus developed. That is, he tries to express in music extra-musical events and meanings in accordance with the conventions he has previously built up from the analogy between music and nature - an analogy due to the fact that the material in music occurs in nature as natural phenomena.

This theory might be pursued still further by considering the history of music from earliest times. Whatever may have

been the prime beginnings of the art, one can well imagine how musical sounds may have entered the life of primitive man. By beating two sticks together primitive man may imitate the sound of branches rubbing against one another in the wind. Or, again, he might strike a hollow gourd with a stick and produce the muffled thundering of waves on a rocky-sea coast, or the roar of thunder in the mountains. The hum of his taut bow-string as the arrow leaves it might suggest to him the cracking of the wind, or the noise of a tree as it splits in two. He may make all these sounds merely for the sake of the sound alone, and thus enjoys the result as absolute sound. The knowledge that he could command loud noises would give primitive man (as it does the child) a sense of power and a feeling of creatorship. (The child who delights in making a loud noise rarely suffers from an inferiority complex). But primitive man, while delighting in his power to express himself in noise, also recognises that he is reproducing the sounds of nature. This may increase still further his sense of mastery, for he might well feel that he rivals the gods themselves who command the thunder-claps. (1)

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(1) It is most likely that the drum was the first primitive instrument. It is peculiarly impressive, and could have a very special significance in the various ways I have illustrated above. It was also used in religious worship. At first it is most probable that noise mainly characterised its use. The incorporation of rhythm into playing it was probably instinctive, owing to the rhythmical muscular action involved in beating; this would lead naturally to a recognition of its rhythmic possibilities.

But the development of music as an art did not lie along those lines. Music began when the noise became, not noise for a purpose - such as summoning the members of the tribe - but aesthetic noise, to be delighted in for its own sake. There may also have been present that additional pleasure which was derived from its resemblance to natural phenomena. But the absolute value of noise as interesting and pleasing in itself is most important. It is from this aspect that the absolute branch of the art developed, culminating in the classical period of Mozart's time. In the music of this period there is a minimum of extra-musical value present. Examples of programme music do occur,<sup>(1)</sup> but their importance can be discounted when put alongside the enormous amount of absolute music produced then.

In Beethoven's music features extrinsic to music as an art of absolute sound begin to creep in. With Beethoven, the forerunner of the Romantics, music begins to fall away from the absolute standard. The classical period was concerned with the supremacy of form. Music here reached its highest point as an absolute (or presentative) art. Then extra-musical elements gradually widened the scope of music. Beethoven brought the mighty leavening of the human personality. Without entirely

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(1) Cf. Bach's "Capriccio on the Departure of his Beloved Brother", a piece of descriptive music modelled on the Biblical Sonatas of Johann Kuhnau; and the cock-drowning in Haydn's Oratorio "The Seasons". etc. The latter has no musical significance.

relinquishing the classical forms he expanded them, often transgressed them, in order to express the dynamics of the struggles of the human soul. Thence music passed through successive stages during which the formal bonds which were the very nature of classical music slackened increasingly to admit of even more remote extra-musical values and associative meanings. Programme music gradually rose to the ascendant.

Romantic composers like Schumann and Chopin and frankly "programme" musicians like Liszt, Berlioz, and then Wagner swept music on until the modern representative school of Ravel, Strauss, Respighi, Honegger, and so on, taxed to the utmost the powers of suggestion and imitation in music. To the human emotional element first incorporated in music by Beethoven was added the pictorial representation of all aspects of man and nature. Music was now at its third stage, where the musician, working backwards, endeavours to interpret nature by using a musical technique of representation based on the earliest associations which music derived from nature.

Modern music, however, goes even farther than this. Composers busy themselves not only with the representation, by imitation or suggestion, of the sounds of nature, but also with the sounds and noises created by man. There is Strauss's "Domestic Symphony", Alban Berg's "Wozzek", Honegger's "Pacific 231", and the "Music of Machines" of Mossolov. If express-trains, the noises of machinery and the like, are to be incorporated in music, we can only wonder where this will end. Such representations may be realistic, or idealistic, according to the

composer's programme-note to "Pacific 281." Here Honegger explicitly states "Ce que j'ai cherché dans Pacific, ce n'est pas l'imitation des bruits de la locomotive, mais la traduction d'une impression visuelle et d'une jouissance physique par une construction musicale. Elle part de la contemplation objective: la tranquille respiration de la machine au repos, l'effort du démanage; puis l'accroissement progressif de la vitesse pour aboutir à l'état lyrique, au pathétique du train de 300 tonnes lancé en pleine nuit à 120 à l'heure."

In spite of the composer's intention as set forth here, the work impressed me as being more imitative than anything else, and both ugly and noisy at that. No doubt, being at the time of hearing this work, completely unversed in modern music, I was unable to perceive any organic unity welding together the loud discordant masses of sound. Miss Katharine Wilson is of the opinion that even factory-noises and other ear-splitting sounds of the modern mechanistic world are "musical, or at least possess a unifying harmony, tremendous as it is satisfying, for the accustomed ear." Going further, she avers that noise - even man-made noise - always fits into the landscape, and quotes in illustration of her point, the case of a derelict train whose parts, scarcely hanging together, gave out the most clamorous din on its journeyings in Northumberland, and yet were felt by her to make up a tremendous symphony of noise. (1)

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(1) Miss Katharine Wilson, Sound and Meaning in English Poetry.  
p. 17.

But such naturally occurring symphonies, as well as those composed by musicians on similar themes, are dangerous to our ear-drums. We are fast becoming immune to noise, but our immunity may bring with it a lack of responsiveness to the subtler and more euphonious musical combinations. Moreover, the growth of yet another school of modern music, which though not representative in aim, troubles less about the beauty of sound-combinations than their purely intellectual interest, may also aid this "music of machines" to bring about the same disastrous end. I am here referring to that group of composers who have turned from the representative school of music to concentrate on an intellectual and mathematical conception of music.<sup>(1)</sup> Such music, to be appreciated, must be seen, not heard. In one sense it is a return to the classical ideal of "form", but it is a return to form as an intellectually conceived and mathematically planned unity, and not as a vital element of artistic development. What looks interesting and well-planned on paper may sound hideous and formless in actual sound. Not even with the gradual adaptation of our ears to admit new and strange discords into the legitimate realm of music shall we be able to hear much of this music with genuine pleasure. Music after all rests on a basis of sensory enjoyment. Should such music become permanently established in our concert-rooms it is hard to see how the listener can keep pace with it. No longer will music conform to the traditional standards of sensuous beauty demanded

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(1) This school includes such names as Schönberg, Anton von Webern, etc.

from the arts by the ordinary man. It will not even be remotely related to or suggestive of things of natural or human interest, so that the associative value which much of our music of today possesses will contribute no longer to the total aesthetic value of musical experience.

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PART III.

THE EMOTIONAL ASPECTS OF MUSICAL EXPERIENCE.

CHAPTER XI.

GENERAL EMOTIONAL EXPERIENCE IN MUSICAL LISTENING.

CHAPTER XI.GENERAL EMOTIONAL EXPERIENCE IN MUSICAL LISTENING.

It is taken for granted by most writers that musical listening is charged with some emotional element. But it must be observed that the ordinary emotional response is not an essential part of musical appreciation and that music cannot be solely, if at all, regarded as the expression of the emotions.<sup>(1)</sup> This view, that music is the expression of the emotions, is held by most unmusical people, by many so-called music-lovers, and by some technically trained people (usually of the practical executant type) who, though superficially skilled, are not genuine musicians.

Such a misconception has a double falseness. It comprises roughly the confused views that music is at once expressive of the emotions or emotional state of mind of the composer, and at the same time that it is capable of arousing these same emotions in the hearer; or, alternatively, of providing an outlet for the hearer to give expression of his own emotions. The fact that the composer who, according to this view, was prompted by his emotions to write the music which is supposed to express them, experienced just those emotions which the listener wants to indulge in, if it is thought about at all, is regarded as a happy coincidence.

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(1) Throughout the following analysis I use the term "emotion" with the loosest meaning to comprise moods, vague feelings, emotions; and sentiments.

From the confusion centring round these two ideas emerges the fact that music can be experienced emotionally by the hearer, and that this attitude, which is included by Professor C. S. Myers in his analysis of what he terms the "intra-subjective" aspect of listening, where music is followed for the sensory, emotional or conative experience it arouses, is of more frequent occurrence in the experience of musically trained people than is usually suspected.<sup>(1)</sup> What the same writer calls the "character" aspect is also closely allied to the attitude which I have just mentioned, where emotional qualities are read into the music. Professor Myers also states that sounds or colours may be 'jolly' or 'high-spirited' when the subject is not. "Art material may be personalized and characterized as 'morbid', 'jovial' . . . . etc., without necessarily having previously evoked or consequently evoking 'morbid' or 'jovial' feelings, etc., in the listener."<sup>(2)</sup> The subject may also identify himself in varying degrees with the character ascribed by him to the music, which, in turn, he may or may not regard as expressive of the emotions of the composer. That he does, however, find the music "jolly" or "high-spirited" independently of his own emotional state at the time, whether or no the music succeeds in producing in him the feeling of being "jolly" or "high-spirited", etc., seems to point to the fact

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(1) "Individual Differences in Listening to Music." Charles S. Myers, in The Effects of Music, edited by Max Schoen, pp. 30, 31.

(2) Ibid, p. 25.

that he recognises some absolute characteristic of the music which is expressive of these qualities, and with which he identifies himself.

To give an example from my own observation: A musician of my acquaintance, cultured, with an excellent ear, and great musical taste, used constantly to describe the music he was playing or listening to in the following way. A phrase was "witty"; a sudden crescendo, such as the opening theme of Beethoven's Sonata No. 1 in F Minor, was "volcanic". Of a particular passage of Brahms's "Variations on a Theme of Schumann", last variation, bar fourteen, where the rich flow of the harmony is marked by a sudden violent change in intensity and harmony, he said: "Now the bottom has fallen out!"



This description does convey crudely the sudden and overwhelming sense of desolation and hopelessness which the change of harmony, marked piano, and occurring on a weak beat, brings to any listener. Here again we come to a certain confusion of meaning. Is this "desolation" an actual quality inherent in the music, which it is intended to express, or does the listener disinterestedly interpret the music in terms of emotional

experience, or does he ascribe to the music the quality of desolation which it has produced in him?

Obviously a certain rhythmical, harmonic and dynamic effect only is achieved in the music. The listener may describe, interpret or live this. It can be accurately described only in the exact musical terms in which it is written and played. Musically explained, the passage rewritten is what the music means. That is its only exact musical significance. But the listener may also interpret it in extra-musical terms. The direction which his extra-musical interpretation assumes depends mainly on the sort of attitude he takes up with regard to listening to music—associative, dramatic, emotional, and so on. He may translate the music into the terms of the idiom most familiar to him as a means of expression. The artist, for example, may translate a musical effect into terms of colour; a writer into terms of literature; a dancer into terms of dance-movement.

The hearer may, however, personify the music. This is fundamentally the recognition of such-and-such a human quality in the music. Words may not come until later, when he makes an attempt to describe his experience. The tendency to personify inanimate objects is primitive and deep-rooted. In the case of music, which has the semblance of a living thing because of its most characteristic qualities of motion, in pitch as well as in time, and also because of its dynamic effects, this tendency becomes particularly strong, and occurs

spontaneously.

The subject may also live the music, either emotionally or aesthetically. He lives the music emotionally when he gives himself up to the successive emotions or moods or sensory experience which the music arouses in him, always provided that he does not lose sight of the music as the source of these emotional states.

Living the music aesthetically is self-individuation in the music or a state of empathy. In aesthetic absorption in music, which is musical appreciation at the highest level, the subject "lives" the relationships of the notes - that is, he follows them in all their aspects of changing pitch, duration, quality and dynamic force.<sup>(1)</sup>

As regards the conception that the music expresses the emotional state of the composer, it is doubtful whether musical effects alone are important in throwing light on the question whether the composer in fact experiences this emotional state. They can do little beyond giving the listener an opportunity of translating into crude and less exact terms the musical meaning which the composer wished to convey. The form in which this musical meaning is embodied may depend in a slight degree on the emotional state he was in at the moment of composition. The choice of such general features as pace, the mode, the smoothness or vivacity of the rhythm, flowing or jerky melody, the prevailing robust or delicate quality of the harmonies, and

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(1) See Part I.

so on, may have been dictated by his mood. Yet it is almost as likely to have had nothing to do with it, and the composer may have used certain dynamic effects, for example, in complete opposition to his mood, by way of "escape" from it.

The knowledge which we have gained as to the methods of composition of different composers goes to show that it is rarely a mood or an emotion which they attempt to pin down and express musically. The methods of Beethoven and Mozart are similar in this - that both these musicians had an impression of their compositions as a whole before transcribing them on paper. This whole was somewhat in the nature of a design or formal scaffolding; for we read of Beethoven searching through the note-books where he was accustomed to jot down musical ideas as they came to him, for the themes he wanted to fit into the framework of his initial conception. It is not to be credited that he chose those themes to express particular emotions, but rather in order to contrast and develop them musically.

The personification of the interpretation in emotional terms of musical effects such as I have described is only a superficial musical experience. It was recognized as such by the same musician I have already mentioned, who was accustomed to describe the music as "witty" and so on. He agreed that the essential quality of any melody was that it should appear "beautiful", though he was unable to explain exactly what constituted beauty in music. He suggested that a melody was

beautiful when it was "musically effective", or "inevitable" or "artistically right", all of which are terms that themselves require definition. He assumed that a melody, for example, would be recognized as beautiful if it conformed to these qualities. It was "judged on points of obviousness, artistry, smoothness", and so on. Obviousness or its absence implied a reference to musical tradition. The music would be "good" in so far as it could be understood in terms of the conventional musical idioms, while at the same time it could be realized as going beyond this. As Sir William Mitchell remarks in "The Structure and Growth of the Mind": "Our admiration (for a great work) may have less surprise in it than a sense of fitness, and often the surprise is that no one has hit the course before." A good or beautiful melody, for example, is not modelled on the pattern of hundreds which went before it.

The term "artistry" includes appropriateness of pitch-interval, choice of time-grouping, and arrangement of dynamic effects. It also includes correct use of technique and choice of medium. Lack of technique and a medium badly handled may result in angularity. An example will illustrate the importance of choice of the medium. A long and cloying melody sounds trite and emotionally redundant when played entirely on the upper register of the 'cello. This is both bad technique and bad taste. We thus arrive at the much discussed question, "What constitutes musical taste?", to which no answer can be given beyond a reference to the standards raised by tradition and environment, and an acknowledgement of the necessity for

accepting these musical conventions. Such conventions are the outcome of aesthetic conditions founded on fundamental natural laws. For example, I may remark in passing that the vocal origin of melody has associated it with impressions of smoothness, and that accordingly there is a point where excessive angularity or speed destroys the beauty of melody.

But it is not easy to give an explanation of the basis for the conviction that such-and-such a melody is beautiful. Intuition, by which we know a work of art as beautiful, is "its own authority, and carries with it the guarantee of its own authenticity."<sup>(1)</sup> Intuition, or the inner conviction of beauty as of truth, has been described by Bergson as "the kind of intellectual sympathy by which one places oneself within an object in order to coincide with what is unique in it, and therefore inexpressible". This is peculiarly true of the appreciation of a piece of music. It is only by entering through sympathy into the meaning of the music that the listener succeeds in grasping it. And a melody, or any other more complex musical art-form, is a purely musical expression with a particular musical meaning; therefore any attempt to appreciate it by translating it into terms other than music must be ineffective as a means of arriving at a true appreciation of its musical beauty.

An exception to this view of music as possessing absolute significance must, however, be made with regard to programme

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(1) C.E.M.Joad, Philosophical Aspects of Modern Science, p.215.

music, and also to impressionistic music. It is clear that in writing such a work as "Pacific 231", Honegger aimed at presenting a definite picture of an express train as it rushed on its headlong journey into space. But such realism actually has little of the beautiful about it, and its claim to be called music is doubtful. Even programme-music must possess musical qualities of value if it is to be regarded as good music.

Although I have emphasized the fact that a true appreciation of music always involves an intellectual approach to the formal or musical significance of a work of music, there is an aspect of music to be considered which lends a certain support to the view that music is expressive of the emotions, and can therefore be approached emotionally. This is its dynamic quality.

Music, like our emotional states, has an ebb and flow which is partly due to the fact that sound and rhythm are both moving qualities. They are not static in time. That is, they can only be perceived throughout a duration of time. Pitch also has the semblance of movement in space as well as in time. Let these two elements be complicated by the addition of "intensity", which is a natural characteristic of each sound from the moment it first impinges on the ear until it dies away into silence, as well as being an essential part of the formal or artistic arrangement of notes as they occur in music, separately, in succession or massed, and the result of this complex

is as expressive a force as exists.

The similarity of this dynamic ebb and flow and height and depth with the ebb and flow and exaltation and depression of our emotional states, is what chiefly favours the giving of an emotional significance to the music. The parallel is equally applicable to each of the three following types of emotional response in which: (1) the emotional state of the subject is directly induced by qualities in the music: (2) the music merely serves to emphasize an existing emotional state; and (3) the subject appears to recognize the music as possessing, or as expressive of, certain emotional qualities irrespective of whether he experiences the corresponding emotions himself.

A brief analysis of these three types of response must be made at this point.

The first depends on the sympathetic arousing of a certain mood of a general emotional nature through the medium of the dynamic qualities of the music. Other musical effects, possessing direct physiological appeal, help to intensify this emotional state, as well as, in some cases, causing it to take a particular direction. For example, music of a slow cantabile nature, in a minor key, and making use of interrupted cadences, suspensions and feminine cadential endings, will convey to and arouse in the type of listener I am considering a feeling of grief, longing, or frustration. Such a work as Brahms's Intermezzo in A Major, Opus 118, which owes much of its plaintive wistfulness and air of feminine grace to the various devices

I have mentioned, is capable of arousing the effect I have in mind. The calm unhurried flow of the music tends to suppress feelings of a violent nature; interrupted cadences are characteristic of frustration; suspensions are akin to hopeless longing; and feminine cadential endings are expressive of weakness.

The languor and melancholy so often conveyed by the minor mode here require explanation. It has almost become a convention to regard music written in a minor key as expressive of sadness. This is partly due to the effect of association. As regards programme-music a correspondence between the sad significance of the title and the key of the music is bound to give rise to a convention which is eventually applied to all music. It is also due partly to qualities inherent in the minor key itself. The extra effort demanded of a hearer, grasping the melodic relations of notes in a scale just removed from the familiar, the major or orthodox scale, is no doubt at the root of the peculiar emotional effect produced by the minor mode. Edmund Gurney describes how the effort which has to be made when the mind proceeds from a certain note to the next in the minor key, imparts a colour to the whole key. <sup>(1)</sup>

In the major scale the mediant has a tendency to rise to the subdominant, owing to its close pitch-proximity to that note. The satisfaction of the expectation that this will take place gives an impression of confidence. In the minor scale,

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(1) Edmund Gurney, The Power of Sound, pp. 270 et seq.

however, the mediant (now a minor third from the tonic) being nearer the supertonic than the subdominant, seems to incline more to the former, and there is less tendency to rise to the latter. "This dependence and reluctance to advance give an impression of diffidence, a character which at any rate seems . . . naturally suggestive of pathos . . ." Similarly in the second half of the minor scale the reluctance to advance from the submediant to the leading note is even greater than in the case of the mediant to subdominant. The long and difficult step of a tone and a half requires an additional effort to achieve. Gurney thus holds that the melancholy of the minor common chord is due to the melodic associations of the chord, and not, as Helmholtz suggests, to the dissonant (harmonic) implications of the actual chord itself. Yet it must be admitted that the minor third (particularly as it occurs in the minor common chord) which is also heard in its derived harmonic relationship to the tonic, has not the same stability which the more consonant interval, the major third possesses. This effect of instability explains why the perfect cadence on a minor common chord is not altogether as satisfying as that on the major common chord. The just major third, being the fifth partial tone of the tonic is felt as being in close-relationship to that note. Early composers thus avoided the minor third as an ending, because of the feeling of dissatisfaction aroused by its imperfect accord with the tonic.

It is interesting to note in passing that Schopenhauer likened the use of the minor key in allegro movements, which

he describes as characteristic of French music, to dancing in tight slippers.

This analysis of the reasons why a particular piece has a particular effect may seem a little far-fetched. But I have no doubt that when a listener says that a certain piece of music makes him feel said, his feeling sad, except where he is already predisposed to feel sad, in which case the feeling is intensified, is due to the occurrence of some of the above features in the music. There are, however, many more musical effects which tend to convey certain aspects of feeling-states to the listener, either through association, or because of some inherent quality which arouses pleasure-pain distribution.

The second type of emotional response - the interpretation of the music according to the subject's own emotional attitude at the time of hearing - involves a very different attitude. It implies a spontaneous recognition of something in common which exists in the music and in the hearer's own mood. The music is felt to be in dynamic sympathy with his emotional state. The flow of the musical relationships moves parallel, as it were, with the emotional flow. It is surprising how readily music of even an opposite dynamic to the hearer's emotion can be made to fit in with and intensify this emotion. For example, it is possible, if one approaches the music with an emotional bias, to interpret the Cantilena of Chopin's Funeral March from his Sonata in B Flat Minor as an expression

of exalted hope triumphing over sorrow; of the poignant sweetness that is often so closely allied to pain; of consolation to grief; or as expressing the keenest sorrow and desolation. All may depend on the mood in which one approaches the music. Where there is no existing emotional bias to colour the music with such extra-musical significance, the passage tends to be interpreted emotionally, by the type of subject I am considering, according to the speed at which it is played. Played fast he may be filled with a sense of triumph or exaltation - played slowly and he may be stricken with a sense of long drawn-out grief.

My own personal experience of this passage is that if I hear it when I am sad, my sadness is intensified however it is played. If I am in a jubilant mood, on the other hand, then no matter how leadenly it is played, it seems to emphasize and accentuate my feeling of jubilation.

The third state requiring to be examined is the personification of the music; or the recognizing in the music of qualities suggestive of certain emotions in the abstract. Dr. Vernon Lee describes such abstract emotional qualities which appear to be part of the music itself as the "infinitives of verbs".<sup>(1)</sup> The music is recognized as being "gay" or "sad" "or sparkling" as the case may be, without the listener actually experiencing in himself the emotions which correspond to these adjectives. This attitude occurs frequently. One realizes

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(1) Vernon Lee: Music and Its Lovers, Part I, Chapter V.

that if one were "gay" or "sad" or "sparkling" the music would coincide with the dynamics of these moods. This recognition of abstract emotional qualities in music may be linked up with what Dr. Lee describes as an historical emotional memory, according to which it is possible to have an intellectual remembrance of a past event and of the emotion which accompanied it; without again having the emotion in all its actuality.<sup>(1)</sup> We recall the nature of the feeling without having it again. We may indeed also have the feeling itself as well as the remembrance of it, but in the response I am considering now, this is not the case.

The parallel between the dynamism of the emotions and the dynamism of music becomes very clear when we consider the close connections between emotion, bodily movement, and the movement of music. Dancing and music have always been regarded as closely allied arts, and the interpretation of emotion in terms of these two arts has been common throughout the ages. Dr. Lee emphasizes this relationship when she discusses in turn "infinitives of verbs", which she also describes as "emotional schemata", and "postural schemata", and their connections with the emotional response to music.

The three kinds of emotional response under consideration may be connected with Ribots theory of affective memory, inasmuch as they are all mainly based on the recognition of qualities in music which are similar to those which distinguished

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(1) Ibid., Part II, Chapter VII.

past emotional experience. These qualities, which Dr. Lee describes as "infinitives of verbs", in an attempt to account for their impersonal vagueness and undifferentiated nature, as well as for their universal emotional significance, she likens to the remaining traces left behind in the mind, of past feelings, moods and emotions. These emotional residua she terms "emotional schemata", on the analogy of "postural schemata" - the traces of past movements.

Ribot's theory of affective memory is briefly thus; Emotional states divested of all their accompanying circumstances can leave behind them a memory of themselves. These memory images of past emotions, he claims, can be revived like all other mnemonic traces, on the return of only a minimum of whatever had originally left them behind.

I prefer to describe the qualities common to music and to our emotional states by the general term of "dynamism", or as "dynamic" qualities. These dynamic qualities include all the general characteristics of emotions, moods and feelings, etc. They are expressive of their intensity or extent, of their swiftness or depth. It is this dynamic element which is left when an emotion fades, as a general inheritance to all our future emotional experience. The exact nature of a past emotion is forgotten with the cause which produced it. Its extent, poignancy or depth, is all that remains. But when the occasion which produced the emotion is recalled, it is on the presence

of this dynamic quality that the reviviscence of the past emotion depends. Where the dynamic element is weak, as in those subjects where affective memory exists in a slight degree only, the re-having of the emotion occurs in a correspondingly weak form.

Since music in itself can never furnish facts or describe events or state propositions, unless they be musical facts or musical events or musical propositions (with the reservation of programme-music), and therefore cannot arouse the remembrance of facts, the transference of the dynamism of music to the dynamism of definite emotional states such as joy, sorrow, defiance, conflict, and so on, means that the subject draws on an experience which is no longer a purely musical experience. The individual is adding an extra-musical meaning to the music in order that he may translate the music into emotional terms, and thus experience it emotionally. The experience of any particular emotion depends on the recognition, it may be only implicit, of a fact, or on the acknowledgement of a relationship between oneself and something external to oneself. Music of itself cannot provide this fact or this relationship. It cannot give the direction which determines the nature of an emotion, though it can qualify the intensity of an emotion already existent.

Some subjects will continue to insist that the above emotional responses to music constitute a fuller and more satisfying experience than the pure experience of following musical

relationships. Obviously, to those who are not thorough-paced listeners, either from lack of inclination, or because they are incapable of it, such experience, though far less valuable from the musical aesthetic standpoint, is not to be despised.

Mr. Clive Bell, in his aesthetic study on art, has described the intense pleasure which the "snug foothills of warm humanity" give him when he descends crestfallen from "the superb peaks of aesthetic exaltation".<sup>(1)</sup> Incapable of following to any sustained degree the pure musical form of a work of music, Mr. Bell confesses that he reads into the harmonies and musical progressions that he cannot grasp, human emotions of terror and mystery, love and hate, and spends the time in a world of turbid feeling. But nevertheless he recognizes it to be a world definitely inferior to the world of pure aesthetic ecstasy which he but rarely visits; a world where the sounds of music seem "combined according to the laws of a mysterious necessity", and where music exists as "pure art with a tremendous significance of its own, and in no relation whatever to the significance of life".<sup>(2)</sup> This attitude of aesthetic absorption he finds akin to that infinitely sublime state of mind to which pure visual form transports him.

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(1) Clive Bell, Art, p. 32.

(2) Ibid, p.31.

But poverty of musical aesthetic experience is often enriched by an aesthetic experience that depends on an extra-musical interest. This occurs when in addition to the emotional experience directly due to the music, associations are evoked which are followed and enjoyed for their intrinsic meaning and beauty. These two responses - the emotional and the associative - go hand in hand in the case of musical experience, the emotions aroused by the music often taking their direction from the associations evoked. Such extra-musical aesthetic enjoyment, however, tends to inhibit the following of the musical relationships for their own sake. In the experience of the highly musical person, associations tend to be repressed, for the music is listened to for the sake of its own meaning and beauty, and not for the meaning and beauty of associations.

I must, however, emphasize the point that no subject ever listens exclusively in one attitude. However strictly the thorough-paced listener tends to inhibit other ways of experiencing music than the purely contemplative, where he gives his whole attention to the music, he does not always succeed in keeping at this level. There is first of all the fact that true listening involves a certain amount of mental effort, which he may be incapable of or undesirous of exerting. There is also the domination of an emotion or a mood which may be too strong to be diverted towards reinforcing the effort required in the intellectual following of the music.

This mood may be itself reinforced in intensity by the music. The subject may even in this way achieve a kind of spiritual and emotional catharsis through the music.

Also, the subject may prefer to listen associatively, or perhaps he cannot help himself and follows the music associatively or emotionally because a programme is suggested, either accidentally, in consequence of a superficial resemblance in the music to some natural sound-effect, or purposely, when a title or programme is given, or when the music is obviously imitative or impressionistic.

The success with which the attitude of aesthetic listening is taken up and sustained, and the likelihood of music's being experienced emotionally, may depend on the quality of the music itself as well as on the bias of the listener. All music, particularly music of the cheap and meretricious sort, does not induce aesthetic absorption. A professed thorough-paced listener may listen at a low level when he considers the music unworthy of greater effort. A musician may accordingly dance to jazz, and surrender himself to the physical qualities of sound and rhythm in jazz, when he would not dream of attending to it for the sake of its musical interest.

We now can see that music induces the emotional responses I have described in two clearly marked ways.

In the first way, as in the case of dance-music, it may make use of factors which have an obvious physiological effect on the hearer. Such features as catchy rhythms, sound

combinations which arouse pleasant or exciting feeling-tone, the use of attractive or physiologically appealing timbres, and so on, help to excite a certain physiological reaction, half pleasant, half painful, in the hearer. The subject is liable to employ the force of pleasant or exciting feeling-tone which characterizes the experience of such effects in order to intensify or modify an existing mood, or to create a new one. Such factors do not in themselves, however, create a definite emotional experience beyond arousing pleasant or disagreeable feeling-tone. This often may take the form of a vague consciousness of bodily well-being, or may even produce a sense of activity in sympathy with these factors. A common example is the feeling that the body is buoyed up by the music, and floats undulatingly along in accord with the rhythmic succession of notes. There is also another example in the spontaneous movement of the body which is stimulated by the music. Such a movement occurs when we unconsciously jig our foot in time to the music.

There is also the pleasing or stirring effect which certain notes played together produce. The relative degree of absolute pleasantness and unpleasantness of the different intervals used in music has been determined fairly accurately by experiment. Octaves, major and minor sixths and thirds are the most agreeable. Successions of thirds and sixths, both major and minor, are powerfully affecting. The opening theme

of Brahms's Clarinet Quintet, for example, owes much of its sensuously beautiful effect to the predominance of these intervals. In the same way certain instrumental timbres like the violoncello have a directly emotional effect on subjects sensitive to quality in sound.

Besides the music which owes its emotional effect to such directly appealing devices, there is a second type which relies on some external factor to arouse a definite emotional state. This is the music which centres round a concept, or a system of concepts imposed on it. Music which is definitely representative, or programmatical, as well as music of the impressionistic type, comes under this head. Successive ideas which are assigned to the music will bring the corresponding emotion in their train. Or the music may evoke an arbitrary system of ideas, or even one complete single idea, in the listener, which arouses in turn a single dominant emotion or mood. Such, for example, is the effect on me of the Cantilena from Chopin's Funeral March which I have already mentioned. Such also seems to be the effect of most impressionistic or titled music. Debussy's "La Cathédrale Engloutie" does not arouse the successive emotions which a description of the story in words would call up. There is created only a rather nebulous mood or feeling which is linked up with the mysterious unrest of the sea. A knowledge of the legend on which the title of the music is based only helps to add a certain degree of emphasis to the effect produced by the muffled notes of the

bells as they toll beneath the waves. The story brings a picture to the mind; but only a vague mystical mood would be aroused by the music without the story. The music becomes the setting for the mood; or the mood becomes the setting for the music.

Thus it is only when the music is connected, either superficially, by the subject himself, or more closely because of the direct representational nature of the music, with an idea, or sequence of ideas, or with the vague atmospheric meaning which works entitled "Nocturne" or "Elegy", etc., convey, that emotional states which can be described in definite emotional terms, are aroused. Every definite emotion is accompanied by an idea or a conceptual meaning. It has its root in an instinct. Music cannot supply that idea; nor can it alone play on that instinct; it can do so only indirectly. But it can supply the dynamism of an emotion when emotional direction is already there. Emotional direction is afforded, that is, the emotion becomes definite, only when an idea external to the music is imposed on it by the subject himself. The idea may be suggested by a purely musical effect, either through association, or because it has become a convention to personify particular musical effects. It may also be suggested by a title, or a programme, or by the listener's own bias towards associative listening.

It is unreasonable to suggest that music makes us experience human emotions in the abstract. To be filled with a

feeling of love directed towards no particular object is not a very convincing emotional state. It is "I love"; and further, "I love an object". Or it may even be by the knowledge that "some one loves" and "I feel 'love' in sympathy". In music this some one may be felt to be the composer, or an imaginary hero. But unless the music is given a programme or a title there is in the music no justification for bodying forth a definite emotion. All that is there is the dynamic element which gives that emotion its intensity or depth.

Thus we may sum up our findings as to the nature of an extra-musical emotional element in musical experience in this way: Where emotional states or even definite emotions are aroused by music, such emotional experience is due to the recognition of a certain sympathetic "dynamism" in the music which is akin to that dynamism which is the emotional schemata or residuum of the subject's past emotional experience. The subject may interpret this dynamism of the music in terms of emotional dynamism and so experience, by the addition of some sort of fragmentary idea, a corresponding emotional experience. The extent to which he interprets the music emotionally will depend in a large degree on the quality of his emotional memory. Where that is slight, or where other factors intervene to prevent its having free play, he may recognize that the music would produce a certain mood were he disposed to feel it; as happens when he finds the music is "gay" without feeling "gay" himself.

Moreover, the definiteness of the mood or the direction which the emotion takes, and the likelihood of a particular emotion's being aroused, are due partly to the inherent tendency of the subject to supplement musical meaning with associative meaning, especially in those cases where the music possesses obvious representative features. The definiteness of the emotion may also be due to the foreknowledge of a programme accompanying the music.

Such emotional experience is, however, not a purely musical experience, and in many cases is hardly a musical experience at all, since it depends on an extra-musical element. Indulgence in such emotional and associative enjoyment is inhibitory to the attitude of aesthetic absorption in the music, since here listening demands undivided attention in order that the musical relationships may be grasped and followed. Interest in emotions or moods which depend on extra-musical factors must go to the wall in aesthetic absorption. Where, however, the musical relationships are easily grasped - when they are so obvious as to be taken for granted - or where they are too difficult to be properly understood, then the subject may take refuge in one of the emotional attitudes I have described.

In such a case he experiences the music emotionally to make up for the slight nature of his intellectual grasp. Here emotional experience and a musical experience which involves a certain intellectual grasp of the music do exist side by

side, but it is doubtful whether complete absorption in the music can ever be attained where there exists an additional interest in the emotion incidentally aroused.

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CHAPTER XII.

THE AESTHETIC EMOTION IN LISTENING TO MUSIC.

CHAPTER XII.THE AESTHETIC EMOTION IN LISTENING TO MUSIC.

Although the emotional attitudes described in the preceding chapter are common enough in the experience of all listeners, including even those who aspire to the highest level of musical listening, they are, as we have seen, separate from and even inhibitory of aesthetic listening. Music, despite programmes, titles, literary and nature associations, and all that makes up the representative side of the art, is at bottom a complex system of tonal and rhythmic relationships. The grasp of these elements in their relation to the extended work of music which they make up is therefore necessarily both analytic and synthetic. The music consists of a progressive unfolding of such relationships; the appreciation of the music as a complete work of art, which is fullest when we are absorbed in the music, is based on an extended intellectual grasp. The nature of the intellectual grasp - the means whereby we follow the musical significance of and become absorbed in the music - has been amply discussed in the earlier chapters. It is now relevant to inquire how far such an intellectual grasp may also be described as "aesthetic". The following statements may be posited in this connection.

The perception, often incomplete and obscure, of the system of developing relationships which we know as music, is not merely a bare experience of formal relationships. The

intellectual grasp of this formal significance of music is accompanied, in true listening, by affective experience distinct from the ordinary emotional experience which colours human relationships. This emotion experienced in true listening can, I think, be most adequately described as "aesthetic."

Assuming that music does arouse in the thorough-paced listener such a distinctive emotional experience, it must next be asked: "What is its nature?" "How does it come into play?" In the following pages I shall attempt to show, first that such an aesthetic emotion does exist, inasmuch as it is identical with the joy and satisfaction and interest which attend the creation by the composer, or the conception at second-hand by the listener, of beautiful music. Secondly, it will be seen that such aesthetic emotion is dependent on the completeness of the intellectual grasp of the musical significance of music. Its presence and degree directly depend on the success with which these formal relationships are grasped as relationships and fitted into their place in the developing whole of the art-work. For it must be admitted that what the thorough-paced listener desires is to grasp and enjoy the significance and beauty of the whole work, and he can only do this through his understanding of the parts. His interest in the music is an interest in the developing of a beautiful whole which can only be conceived or perfectly understood in musical terms.

There is finally the question: "Is this the entire

experience?" Must we admit, as many listeners have emphatically affirmed, that there is also present in musical appreciation at its highest an awareness and joy in some spiritual or transcendent meaning which is dimly felt to exist behind the formal meaning and beauty of the work, and which glorifies the experience and gives it a mystical value?

We have already reached the following conclusions with regard to what I have described as "aesthetic listening". Aesthetic listening presupposes an interest in music for its own sake. Aesthetic absorption is thus based on the grasping and following of tonal and rhythmic relationships, and the recognition of the musical whole which they make up. This is the cognitive factor in the experience of listening. The interest in the musical whole for the sake of its intrinsic meaning and beauty is the affective element in the experience. There must also be included the striving and effort which almost inevitably accompany the intellectual grasp on which interest depends. Successful conation brings with it satisfaction and interest or affective experience in a general sense. Such is the outline of the experience, considered simply as an experience for and by itself. The final factors of successful effort and satisfaction make the experience a vital experience. The successfully completed effort of grasping musical relationships and synthesising them into one comprehended whole of balanced artistic unity is accompanied by more or less

satisfaction according to whether the final comprehension of the music thus achieved is complete or partial. There is thus enjoyment of the object grasped and of the successful grasping. The satisfaction is a growing satisfaction in the successive stages of partially realised expectation which culminates in the final realisation of the reconciliation and fulfilment of the parts in the whole. Because, in aesthetic listening, the subject is absorbed in the music, and "lives it", the successful grasp of the music through which absorption is reached is accompanied by a definite sense of self-fulfilment which partially explains the general glow and exaltation, or heightening of emotional tone, which listening to great music inspires. This exaltation, resulting partly from the satisfaction in successfully directed effort, is as much due to the ease and skill with which the listener follows the music as it is to interest in the inspiring qualities of the music itself. It therefore depends on the subject's musical sensibility and on his musical background - his power of taking musical relationships for granted. It is also qualified by the degree to which the music fulfils his expectation how far he is right in his predictions - and by the degree to which he finds and enjoys the music as beautiful. (His standards of beauty are naturally derived from his past musical experience). The satisfaction he feels is thus also determined by the quality of the music itself. The relationships may be themselves

obscure, or ill-arranged; and then the complete effect will be illogical and inartistic. Thus besides the satisfaction in successful conation there is also interest in cognition - an interest controlled by the degree to which the listener approves of the artistic fitness with which the relationships were developed to form the musical whole. But the listener must be capable of recognising the inevitableness or artistic justification of these relationships. Such a capacity depends, as before, partly on his background of musical experience; but it is also partly instinctive. When music appeals to him as beautiful and is felt to be an impressive, sustained, and coherent utterance and not merely a meaningless concatenation of sounds, the aesthetic emotion is most intense. The music is felt to be significant because it can be grasped as a whole. His appreciation of music is thus an experience of the significance of the whole as a whole, through his understanding of the coherence of the parts. It is necessary to emphasise this once again, as it is possible to grasp the parts without realising their significance as constituting a whole endowed with perfect unity. In an incomplete musical perception, successive relationships may be grasped in a limited way, without the subject correlating them into a whole. Thus their formal import may be immediately realised, as when we perceive that a certain phrase ends in a particular cadence. But we do not understand this phrase fully as music, unless we have followed its progression from the

beginning through each succeeding note until it culminates in the cadence. <sup>(1)</sup> Mr. W. J. Turner's description of listening is interesting for the light it throws on this question of the appreciation of the whole through the parts. He believes that the comprehension of a complete work of music is dependent on what he calls "an act of interior recognition." "When all the bits have been pieced together in the memory there still remains the act of interior recognition which makes them into a whole. This act of imagination - of experiencing in our imagination what (the composer) experiences, is only possible, however, if we can observe, remember, and fit together the bits."<sup>(2)</sup> In following music it is assumed that as the listener

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(1) Such imperfect understanding occurs most often when the attention wanders. As I have shown, unwavering attention is necessary to true aesthetic absorption if an intricate work is to be coherently followed from start to finish. In our enjoyment of a picture, a statue, or a book, our attention may wander at times without destroying the value of our aesthetic enjoyment of the whole work. But our attention to music must be continuous and sustained. The appreciation of almost any other art-form, with perhaps the exception of drama, permits of turning back so that the subject may refer to past details in order to understand what he cannot immediately grasp. But music allows no such turning back, except in the memory. At an ordinary concert-hearing the listener depends on his memory and on unremitting attention if he is to follow the music successfully. It is thus evident that a perfect grasp of complex music at a single hearing is almost impossible. The famous anecdote, which relates how Mozart, at the age of fourteen, copied out from memory Allegri's "Miserere" after a single hearing describes an exceptional case. Even Mozart had to make a few corrections when he secretly compared his copy with the original at a second hearing in the Sistine Chapel.

(2) W. J. Turner, Beethoven, Footnote to P.298.

is recording "the bits" he is at the same time forming his comprehension of the whole. But this is not always so. There is a difference between grasping a lifeless succession of formal relationships and receiving from a completed work a total impression of vital artistic purpose or even "truth". Mr. Turner's use of the phrase "the act of imagination" emphasises the fact that aesthetic listening is a constructive experience. The listener must re-create for himself the artwork created in the first place by the composer. Each musical phrase must be "thought again" if it is to convey any impression of musical beauty or significance to the listener. This necessity for identifying the self in listening with the music has been discussed elsewhere; but it is worth while to glance at this aspect again from the standpoint of performing, where the experience is fundamentally necessary to a true and valuable interpretation.

It is difficult to explain why a performer who is obviously listening to the sense of what he is playing should give a more satisfying rendering of Bach's Prelude in C# Minor (Book I of "The Well-tempered Clavier") for example, than the player who plays the notes unthinkingly, even though the latter gives a superficial air of phrasing to the whole piece. The first player seems to feel the movement of the notes with an intensity and a conviction of their absolute significance which are lacking in the second player. Their rise and fall

possess this absolute truth and beauty for the former only so long as he strains to follow the music. He may not trouble to work out explicitly the relations of the notes (for he may not even know them objectively) but he nevertheless feels the beauty and significance of a phrase like the following:-

*Andante Cantabile*

The image shows a handwritten musical score for a piano piece. The title is "Andante Cantabile". The score is written on two staves, treble and bass clef. The key signature is two sharps (F# and C#) and the time signature is 6/4. The music features a melodic line in the right hand and a supporting bass line in the left hand, with various ornaments and phrasing marks.

This realisation will impart a unity to his rendering of the phrase which seems to be externally expressed in exquisite gradations of tone, momentary rubato, and finish of phrasing. The same qualities will also distinguish his performance of the whole work. Such a player has a conception of finish, of rounded perfection of beauty and of absolute significance without necessarily feeling the work to be expressive of the "Holy of Holies", as one commentator has described it. Such artistic performance, like attentive listening, involves creative activity; and this, even at second-hand brings with it a peculiar satisfaction. This satisfaction, which is remote from any idea of ulterior purpose and may be truly described as aesthetic, and which, in the composer, attends

the creation of music at first-hand and, in the listener or performer, the re-creation of a beautiful work of music at second-hand, must now be dealt with more fully.

It is first and foremost a disinterested satisfaction. We listen and enjoy solely for the sake of listening. The aesthetic emotion which attends such listening is therefore akin to the emotion characteristic of the play-activity of the young. It is a prolongation of satisfaction in successful effort for its own sake. Thus, like play-activity, it may also be described as a manifestation of the creative instinct, without the utilitarian purposiveness which gives meaning to creative activity outside the realm of art.

But the tracing back to its origin of the aesthetic emotion (which M. Ribot calls, perhaps more accurately, "aesthetic feeling") is not so important as the fact that only by admitting the existence of such an emotion can we explain the peculiar joy and satisfaction which the contemplation of great art brings. It is a joy and satisfaction in the absolute or intrinsic meaning and beauty of a work of art. For though the origin of music may be traced back to "song" when it was a spontaneous and instinctive means of expression, art does not begin until "song" is divorced from its end as "expression" and is regarded as an end in itself. The song is externalised by the singer in the sense that he dissociates its value as personal expression from its intrinsic value as a beautiful form. Though the singer may also examine it and find it good

as expression, he must find it good and attractive in itself if he is to experience it aesthetically. This interest in, and appreciation of, the song apart from its value as expression may extend so far that the self is submerged in the art-form, but not in the same way as when the self was identified with the song as a spontaneous expression of self. The singer repeats his song, now no longer merely a form of this spontaneous self-expression, from sheer delight in the beauty of his own creation, with which he now identifies himself in a new way.

It is this identification of the self with the art-form which I regard as fundamentally characteristic of aesthetic absorption in music. The expressive or subjective element behind the self-individuation in the song as art, cannot, however, be entirely separated from the formal element, since in the last resort it is the subjective element which determines the form. For it must be acknowledged that music attains most nearly that ideal towards which all the arts strive - the ideal in which, according to Pater, "form and content are one, in which the thing said and the manner of saying it cannot be separated."<sup>(1)</sup> Thus the meaning of music is indissolubly united to its formal meaning, and cannot exist apart from it. In art, form and content are only separable when the content is concrete and definite, and therefore comes most

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(1) Walter Pater, Essay on the School of Giorgione, in The Renaissance, P.144.

close to the objective aspects of life. In music the material is abstract, therefore it can only embody an abstract content.<sup>(1)</sup>

A melody, to take a single and simple unit, is a logical (=related) sequence of tones. It makes no assertion; therefore it cannot be described as true, except in the sense that it possesses an absolute musical truth, or what could be described as an intrinsic significance which is its own excuse for being. But now we arrive at the vital question: "What, then, makes such purely formal relationships satisfying, and gives them a significance capable of arousing the aesthetic interest we are dealing with?" Why should self-individuation with musical relationships be such a satisfying aesthetic experience? In other words, is perception of unity of form inherently satisfying?

Hanslick speaks of the intrinsic beauty of the arabesque as being a source of pleasure. As a formalist his view is the orthodox one; but what adds a particular and an almost contradictory emphasis to his aesthetic theory is the following admission: "Far be it from us to under-rate the deep emotion which music awakens . . . . It is one of the most precious of inestimable secrets of nature, that an art should have the power of evoking feelings entirely free from worldly associations, and kindled, as it were, by the spark divine."<sup>(2)</sup>

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(1) "The fluid nature of (music's) impressions renders them difficult to define - sounds and rhythms have absolute value." G. Dyson, The New Music, P.19.

(2) Hanslick, The Beautiful in Music, P.26.

It has been admitted in the previous chapter how prone musical listeners are to translate their musical experience into emotional terms. Since the very nature of music is utterance - utterance through the medium of abstract sound-relationship - and since that utterance is expressed in a formal beauty of sound to which there is no parallel among the external realities of the world we live in, it is natural that music in its purest and most exalted form should be regarded as expressive of some transcendental or spiritual meaning, and that it should even be felt as revelatory of the fundamental and eternal truths of existence. But such interpretation of music in transcendental terms is again a subjective reaction. In every case it can be traced back as due to the fundamental beliefs of the individual listener. As opposed to this spiritual view of music's significance is the purely materialistic view of a clever scientist and mathematician of my acquaintance. Such listeners as this professedly agnostic, or even atheistical scientist, find no such spiritual meaning in music, and regard it as satisfying from the point of formal beauty alone.

This belief in the spiritual value of music can be linked up with a second consideration which I have already touched on - that is, the tremendous significance and impressiveness of sound and rhythm in their elementary physical aspect. The question may be put thus: How far is the fundamental impressiveness (impressiveness here to be interpreted in terms of agreeable, exciting and awe-inspiring qualities) of tone and

rhythm intrinsically responsible for this aesthetic experience and for this spiritual elevation?

In musical listening there is always, as we have seen, a basis of pleasure-pain distribution which is the direct result of the physical elements of music. In aesthetic listening these physical effects are no longer enjoyed for their own sake alone, as in listening at the sensory level, but they nevertheless give a certain "tone" to the aesthetic experience. These factors - rhythm, harmonious combinations, timbre, and the like - which control the primary pleasure-pain distribution are not sufficient to account for more than a very small degree of musical aesthetic pleasure. <sup>(1)</sup> Basically, music should show a predominance of, or at least give an implicit emphasis to, such agreeable or satisfyingly stimulating effects, or it would descend to the realm of cacophony and cease to appeal at all. But music is ever so much more than this. Music, heard and enjoyed as an art, is the ordered sound and rhythmic unity as conceived in the first place by an individual mind (or, as in the case of folk-song, a group of minds) and understood as such at second-hand by the listener. Thus we can affirm that no music, defined from this point of view, can exist spontaneously in Nature. The aesthetic listener

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(1) "Tone and rhythm, colour and form, have a natural beauty or ugliness, are a natural base of emotion." W. Mitchell, The Structure and Growth of the Mind, p.177.

demands something more from music than formless melodious sounds and rhythms such as he may hear in the song of birds.

I have repeatedly described music as a unity of formal relationships conceived in a certain order by an individual mind. Is the recognition of such unity of form inherently satisfying, and is it a sufficient basis for aesthetic satisfaction? I believe that it is. From my own experience of listening, and from my observation of the experience of musicians and cultured listeners, I believe that this is what they ask from music as a source of satisfying aesthetic experience. Let us turn again to the question of formal relationships, the discussion of which has formed the major part of this thesis. We have seen how the interest of the thorough-paced listener is centred on the developing system of relationships; how the music alternately arouses and satisfies expectation. The formal scheme of music provides greater variety and scope for developing experience within the necessary limits than any other art. This is what makes complex the interest in the course of following music. The physiological pleasantness of sound-combinations palls unless these are contrasted and developed as moving parts of a vital whole. The relief which is given by variation of intensity and timbre provides only the minimum of intellectual difference of one part of the composition from others, and does not stave off the boredom of

familiarity.

The interest which a programme affords is not a vital constituent to interest in the music for its own sake, for the latter can exist independently, and indeed may be inhibited by the presence of the former. Musical aesthetic interest depends on a progressive following of pitch-and-time relationships, in which the relationships are grasped (not necessarily explicitly, and most often only intuitively as is generally the case in complete aesthetic absorption; in the case of skilled musicians they are taken for granted) both successively, and finally as making up a significant musical whole. Progressively sustained and partially satisfied expectation distinguishes the course of experience until the final note is sounded, when all contrasted elements are felt to be reconciled. The satisfaction which attends the complete or partial fulfilment of this expectation forms a most important factor in developing and expanding this aesthetic interest. Aesthetic interest is thus mainly based on an intellectual grasp. "Intellectual" must here be taken to refer not to a systematising and understanding of concepts or conceptual meaning, but to a systematising and following of formal relationships and a grasping of the musical "meaning" with which such relationships have become traditionally endowed. <sup>(1)</sup> Such musical meaning has point or value as an intelligible, coherent, and beautiful unity of the formal

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(1) cf. Chapter VII.

elements of tone and rhythm. This intellectual grasp of musical meaning can in the last resort be described as "intuitive."

But though this basic satisfaction in successful effort is a prominent feature in the aesthetic satisfaction which listening to and understanding good music affords, there is a more important factor in the experience which consists in the interest in the music itself. The interest in tonal and rhythmic relationships is an intrinsic interest. As in the case of song divorced from its value as personal expression, interest is not directed towards the achievement of a goal external to the music. In the development of this interest the mental state as well as the music is valued for itself without regard for the related ideas permitting action or logical thought. The perfect following and understanding of the music is the only goal. Except in the case of objective (critical) listening, the listener has no other aim in view than to obtain aesthetic satisfaction, though this need not be consciously sought. Even in objective listening the goal is the same, but is now pushed one step further back. The critical listener may listen to improve his technical knowledge in order to know and enjoy the music better in the future; though he must not forget this ultimate aim, and fail to proceed to subjective listening once he has attained the means. True aesthetic listening is subjective or contemplative, not objective or

critical. As in play, the listener is able to enjoy the use of his faculties, and delights in the music which he is following, with all the freedom from thought of a goal which we see in the child at play. There is present no conscious or unconscious thought of purpose. Nor is the music followed or enjoyed for any reason than the sake of its intrinsic interest. The listener lives the music, not emotionally, dramatically or associatively, but musically, or formally. And just as play is an experience of self-activity which exercises and develops the muscles and prepares the individual for purposive action in adult years, so listening to music is a form of self-activity bringing higher centres into action. Such experience exercises and strengthens the faculties on which the solving of life's higher problems depends. Play does its work directly, music performs its task indirectly, but not less thoroughly. The coherent following of music, on which aesthetic interest depends, demands persistent effort. Transferred to the field of practical and moral activity, surely the habit of steady concentration must help the normal individual to attain a steadfastness of purpose and a recognition of the inner harmony of life which will bring him to a nobler and fuller way of living.

Though the musical experience of the listener is, in itself, immediately unrelated to the world of general experience, it is, nevertheless, conditioned in its intensity and significance by his general capacity to experience.<sup>(1)</sup> In this way, the

(1) W. Mitchell, The Structure and Growth of the Mind, p.170.

effect of music on the general capacity to experience, and the cumulative effect of general experience on the particular musical experience, are reciprocal. For in the experience of music, as in all forms of experience, the problems of personality and individuality must be taken into consideration. It is fairly certain that the greater is the subject's capacity to experience, and the wider his background of general experience, the richer will be his particular experience, provided that the immediate means are within his reach. In the case of music he must be musically receptive, and he must pay attention to the music to the exclusion of all other interests.

Broadly speaking, the listener's musical experience is partly dependent on his personality, in the same way as the composer's personality determines the style and breadth of conception of his music. Beethoven had more to say, musically, than Bach, for example, and said it more significantly, for Beethoven had the deeper and more developed character or personality. Even taking into consideration the fact that Bach's genius was limited by the stricter forms he was constrained to use because of the period in which he wrote, this conclusion still stands. Bach expressed through his work a more limited personal experience, though with greater perfection of form, than Beethoven. It must be understood that the words "personality", "interpret", and "expressed", have only a general significance. The composer only interprets the relation of

his personality to life in the sense that all experience helps to deepen and strengthen the inner nature; and a musical idea, or, on a larger scale, the unity of developed and contrasted ideas which make up a work of music, is a product, and to a certain degree, a reflection of that inner nature. Though the significance of a musical idea cannot be explained in the terms of conceptual meaning as we ordinarily understand it, the form that a musical idea takes is nevertheless determined by the personality of the composer. In the same way, the breadth of the entire musical conception reflects the breadth of the composer's inner nature. It is, as it were, a transmutation of experience into the purely abstract terms of formal tonal and rhythmic relationships. The more valuable the life-experience, the more valuable will be the musical idea and the finer the total conception. This argument holds good with regard to the experience of the listener only in reverse order, as the musical idea is ready made for him, and he has merely to re-live it in order to enjoy it.

Besides the fact that the listener's musical experience gains indirectly in depth and richness from the richness of his extra-musical life, it must also be recognised that the listener may turn to music by way of "escape" from the realities and problems of practical life. In music he finds a world where a musical logic and a musical significance and purposiveness take the place of the world of striving and perplexity

in which we live. Here he achieves a joy and a satisfaction perhaps never to be realised in the world of actual fact. Thus music becomes a means of strengthening the listener to take up the battle again.

Dr. Vernon Lee partly substantiates this view when she ascribes to music the role of providing the excitement which she believes is of vital need to man.<sup>(1)</sup> From evidence collected by her numerous questionnaires Dr. Lee draws the following conclusions: "Music ministers to an underlying vital need for excitement as such. A need which, finding satisfaction in all other human activities, sexual, muscular, or cerebral, may itself, I cannot help (ignorantly) fancying, be fundamental and older: need for change in life's process of replenishment and elimination; and where the activities are psychic, change felt as revivifying and grateful excitement." Dr. Lee follows this theory with a thoughtful recognition of music's fundamental place and purpose in life. It is her belief that "man had better in future find a satisfaction of this need for vital excitement in listening to great music instead of turning Europe into a battlefield."

It may indeed be that this is so. But to seek a purpose for music outside the delight which its contemplation arouses

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(1) Vernon Lee, Music and Its Lovers, p.558

and the tranquility it creates seems an unnecessary attempt to bring music into direct relation with the practical and moral needs of life. "Man does not live by bread alone" is a hackneyed saying but nevertheless true. Spiritual needs must be satisfied no less than material. No other art, with the possible exception of literary art, brings the contemplative ecstasy and satisfaction which music brings. Even literature, after all, is closely knit with the things and events, the persons and the emotions, of life. The contemplation of music is contemplative experience par excellence. It is natural for man to delight in, and be tranquillised by, what is beautiful, whether or not it has a purpose beyond its existence as beautiful. Accordingly, therefore, in the aesthetic contemplation, which is true listening, there must be included along with the satisfaction felt in following relationships and recognising the whole in the developing progression of the parts - the perception of musical form - and over and above the essential basis of sensuous pleasure in the musical material, a third element. This is the recognition of the music as beautiful. This third element may, confusingly enough, be partly resolved into the two former elements. The beautiful in the tonal and rhythmic relationships of musical form is partly realised according to the ease with which these relationships are followed and understood in their relation to the listener's musical background. It must also be kept in mind that the fabric of music - tone - possesses an absolute beauty of its

own independent of the beauty of arrangement.

Yet there is a final quality which distinguishes the experience of hearing a melody which we understand musically, but feel to be utterly banal and trite, from our experience of hearing another melody and finding it beautiful and therefore aesthetically satisfying. The nature of this vital quality I shall now discuss. It is not an associative value, although, as I have suggested in Chapters VIII and X this associative factor is often indirectly present. In aesthetic listening the direct associative significance of music is at a minimum. Even should the direct associative factor be present, it need not be, or is only rarely so with cultured listeners, the source of aesthetic pleasure or interest. We often half-consciously mark the correspondence between music and external movements and sounds, but this is seldom a sufficient base of aesthetic pleasure.

Nor can such aesthetic emotion as I have been considering be reduced to terms of everyday emotional experience, though such emotions may indeed be sympathetically aroused or heightened by the music. But definite emotions, moods and feelings do not enter into the realm of musical aesthetic contemplation.

As a last resort let us again turn to the relation of the subject to the aesthetic object in our search for the explanation why he perceives and enjoys certain music as beautiful. There are, as we have seen, certain subjective characteristics which are vital to the state of aesthetic absorption over and

above the necessity for the music to be a suitable aesthetic object. Whether or not we take up this attitude to music depends first, on whether we are capable of taking it up - i.e. whether we are musically receptive - ; and secondly on whether the object is apprehensible in this special way. I have dealt at length with the attitude of the subject in aesthetic absorption. It has been seen that this course of experience, like any other, is a developing course. The subject passes from a state of neutrality with relation to the object to a state of intense mental activity about the object. Starting from a bare undifferentiated awareness the course expands into a fuller and more systematised knowledge of the aesthetic object. This is, incidentally, this difference. In an ordinary course of experience the awareness of the object is a progressive awareness of a static object. In musical listening, the object is not static; it is progressive; and our interest in it is akin to our interest in a developing situation. But we do not have to act with regard to the musical situation.

Now the question as to the suitability of the object to arouse aesthetic emotion must be considered. To what extent is aesthetic emotion dependent on the recognition of a certain quality - the quality of beauty - which may be ascribed to the music? The natural corollary to this is the question: Is "beauty" in music a quality of the music qua object, or a

quality of the music qua thing?

Aesthetic experience, like all experience, is always an experience of an object by a subject. Thus it depends upon a relationship - a relationship between a subject and an object. It is an attitude of a subject to an object. As such the nature and quality of both subject and object must be taken jointly into consideration. The subject must be able to perceive the object to be a unity of parts standing in a unique relationship to one another and to the whole. The object must be such as to permit the subject to experience it in this particular way. And it must be such that, being understood, it arouses a feeling of satisfaction and even joy or contemplative ecstasy in its perfection.

The nature of the qualities which determine the aesthetic value (or beauty) of a work of music is strictly beyond the scope of this paper. I have already touched upon this question in the previous chapter. It is necessary only to refer to it briefly here. It is always important, first, to view any work of music in relation to its aesthetic historical background. The cultured listener possesses a knowledge of the aesthetic principles of the art from an historical point of view, as well as an awareness (it may be only intuitive) of the absolute principles on which it is based.

It may be inferred that all beauty in music is relative. What one age finds aesthetically satisfying a later age finds mediocre, weak, or unintelligible. Yet there is also a certain

absolute and constant beauty in the sensuous element of tone, melody and harmony, which music uses as its art-material. A major common chord is intrinsically beautiful, whether it stand by itself, or as a single haven of consonance in a modern atonal passage.<sup>(1)</sup> It may also, of course, possess a derived value from its position in the harmonic context. Musical tone has in itself absolute beauty. Musical form (pitch and time-relationships) has relative beauty. Whether the listener finds a work of music beautiful depends largely on whether he can recognise its correct place in the musical background of all music. He must not expect, for example, the same quality of orchestration in a Mozart Symphony which he takes for granted in a Brahms Symphony, or a Strauss Symphonic Poem. If Mozart's classical structure appears too formal and conventional after the more romantic treatment of the later composers, he has to bear in mind that such formalism is a distinguishing mark of the period and does not indicate a lack of variety in style.

How then, it may be asked, is the listener to distinguish between the false and the true - between, for example, a Bach fugue and a fugue written by a clever modern student? The Bach fugue admittedly reaches the highest point of perfection of that genre. It represents the musical culmination of the age which produced Bach. In the expression of his musical ideas

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(1) cf. Alban Berg's "Wozzek."

Bach went further than any musician before him. The term "expression" here includes not only the technical setting-out of the relationships, but the actual form or conception which the musical ideas took at the direction of Bach's inward inspiration. Thus the form is revelatory of the composer's inner nature. The arrangement of the musical sounds represents the sincerity of his whole personal life and experience expressed through his music without being in any sense a translation of a specific mood or conceptual idea, or a conscious description of the composer's reaction to any external emotional experience. The student may have produced a fugue academically correct, made up of well-contrasted and balanced parts, and perhaps based on a theme similar to Bach's. Yet his work does not sound inevitably right in the same way as Bach's. It does not possess that spontaneous sincerity which marks the classical work. The student, moreover, is originating nothing new. His aggregation of parts may result in an externally unified whole, but it does not possess the same organic unity which rounds to perfection the product of an original creative act. The first is a unity of parts objectively conceived. The second is the unity of a complete creation subjectively inspired. Bach's fugue is new and unique experience. It is the inspired achievement of a musician who was at once a pioneer in that particular form of musical expression, and at the same time the exponent who carried it furthest. Because it is new and unique, evolved indeed out of existing forms, but

refashioned by a new vision, the listener also can experience it, though at second hand, by the same kind of vision which inspired the artist's creation. Though his vision is the vision of re-creation, not of creation, he nevertheless feels something of the same spontaneity and truth which distinguished the artist's conception. The student, however, starts off with the inheritance of the forms, as well as with the knowledge of the whole output of Bach's genius. His work is like an emotional echo of Bach's music. The inner vitality of the style is extinguished. It is no longer genuine or spontaneous. In achieving great music the composer must surpass the musical limitations of his time. He is forever overturning old musical ideals and advancing towards new ones.

But still the question as to what determines our finding the music beautiful has not been satisfactorily answered. The aesthetic attitude is dependent on a certain quality of the object. Then do art-objects only possess this quality of beauty, or are natural objects ever aesthetic objects? Beauty in nature exists, but it becomes the source of aesthetic emotion only when we create out of nature a work of art of our own. Then we have an inward vision of beauty different from the external manifestation of beauty in nature as it exists for the unsympathetic eye.

In this context the following theory of Dr. Joad may be put forward: that aesthetic experience depends in part on the quality of the object, as distinguished from our manner of

apprehending it. Take again the case of the appreciation of a Bach fugue. "Regarded from the point of view of science the processes demonstrably involved in such appreciation are strangely irrelevant to the aesthetic effect . . . . To give an account of all the events which take place between the moment at which Bach conceived the musical idea and that at which I hear a Bach fugue would fill a volume. But of the one thing that matters, the beauty of the music, no word would have been said, nor would any account have been given of the pleasure which I experience in the hearing of it, or why I experience that pleasure . . . . And the reason why the beauty and my pleasure in the fugue are left out of the scientific description is . . . . that beauty is a character of the whole . . . . The statement of the theme of a Bach fugue consists normally of no more than a dozen notes. To strike them at random upon the piano is to start a chain of physical processes of the nature and apprehension of which the physicist and the physiologist between them might give a completely satisfactory account. It would be satisfactory in the sense that it would include everything of importance that there was to say about them. Arrange the same notes in such a way as to form the statement of the fugue theme, and hearing them you may be thrilled to ecstasy. The actual physical and physiological events that occur, the sound waves that travel through the atmosphere, the vibrations of the ear-drums, are the same in

both cases; it is only their sequence which is different. The order and sequence of the physical events is, in other words, an essential ingredient in the occurrence and appreciation of value; yet order and sequence are not themselves physical things, and no account can, therefore, be given of them in scientific terms. That in the case of the Bach fugue it is the beauty which matters would be generally agreed; and beauty is aesthetic value. Hence we arrive at the conclusion that aesthetic value is a function of a whole, and cannot be grasped by the methods of science."<sup>(1)</sup>

It cannot indeed be adequately grasped by the methods of psychology. We may describe the experience of grasping musical relationships; and we may see how this grasp depends partly on memory-activity and partly on an inner recognition that certain groupings and combinations of notes and rhythms make up a whole that is aesthetically satisfying. We may succeed in referring (often only intuitively) certain arrangements of notes back to their artistic development in musical history. But we cannot put our finger on the reason why this arrangement of notes is felt as beautiful and is musically satisfying, and a nearly similar arrangement fails to move us.

We may consider the case from a new aspect by reflecting upon those experiences where we find the object beautiful, yet do not have aesthetic feeling for it. Here we recognise that

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(1) C. E. M. Joad, Philosophical Aspects of Modern Science.  
p.205 et seq.

the object may afford an occasion for aesthetic experience without our necessarily having that experience. A parallel experience exists in the lower sense-realm of "taste". We may, disliking the taste of peaches, yet recognise that a particular peach comprises the essence of perfection of peach-taste for those who enjoy peaches. Similarly, a musician who does not care for the so-called "classical" school of music, may recognise the perfection of Mozart's music in that genre. He realises that such and such a flow of notes is beautiful and inevitable (epithets seeming to describe the greatest musical creations); yet he does not experience an aesthetic emotion towards that particular work. Such experience is aesthetic in the sense that the intellectual base is present; it is non-aesthetic inasmuch as the subject is not emotionally warmed by the object. This experience is comparable to the occasion when we "see" the point of a joke without finding it funny, and so do not laugh!

The aesthetic interest or emotion which colours musical absorption is thus a synthesis of the interest in and satisfaction afforded by the intellectual element, or cognition; and the affective element or pleasure and satisfaction in a particular kind of object which must be grasped cognitively in order to be thus enjoyed and understood; inextricably blended with the satisfaction in successful conation; with the addition of such basic pleasure-pain distribution as the

obvious physiological effects of the music excite. This last element is usually fused with the general affective element, and in the highest kind of listening cannot be separated from it. Moreover, in aesthetic absorption - when interest in the music possess from the very active and comprehensive state of following the relationships to that mystical state where the subject is caught up and identified with the music, interest in the pleasure-pain distribution is at a minimum. This mystical state of pure aesthetic absorption must, however, be distinguished from passive hearing.

In aesthetic listening the subject follows the relationships, not objectively, but subjectively. He may have made them explicit in the past, either as they occurred separately, in different contexts, or in a previous hearing of the same work. If he has done this in the past, he is now able to recognise and combine the same relationships as they occur in new contexts. He thus takes them for granted, without having to repeat the process whereby he originally grasped them. His first grasp of certain combinations may have been imperfect and incomplete. In this case his present absorption may remain correspondingly imperfect; the subject may be contented with accepting lacunae, and jumping over the gaps. Such imperfect following is not satisfying to the thorough-paced listener; yet it occurs far more often than he suspects or will admit.

First and foremost the unsatisfactory nature of such broken and non-sustained listening means that the significance of the whole work of art, as a whole, is lost, or only partially understood. Each part must be understood as contributing vitally to that organic musical whole, on the perfect grasp of which depends the fullest experience of beauty. The parts indeed may be realised as beautiful in themselves, and so afford a limited measure of aesthetic enjoyment, but the aesthetic pleasure and satisfaction derived from the understanding of the parts in their relation to the whole far surpasses this in quality and intensity. In complete aesthetic absorption the entire musical work is intuitively grasped as a whole; to which the relationship of the parts are understood, and taken for granted. It is a direct, though extended, intuitive grasp; the coherence of which is destroyed should attention wander, or the successive parts baffle the listener and fail to slip into their allotted place.

Thus it must be concluded that musical aesthetic absorption constrains an interest which is exclusive of everything but the music; and which has as its base an intellectual (or cognitive) grasp of the system of formal relationships which is the music. For this interest in the music qua music to be perfectly sustained the music must be understood and enjoyed in every detail. The subject must be receptive, the object, the music, must be such that it can be grasped as a whole, and

in the process of being grasped give an impression of beauty and reveal a significance of truth and value which can only be enjoyed and understood in terms of itself.

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APPENDICES.

APPENDIX "A"

NOTES TO CHAPTERS VIII AND X.

1. The Value of Timbre, Derived or Intrinsic:

The question of the value of the timbre of certain musical instruments whether derived or intrinsic, is an interesting one, and would repay research. In music certain instruments have become associated with extra-musical qualities and are always used by composers who wish to suggest extra-musical effects. The case of wind-instruments is particularly fascinating, for this whole group seems characteristic of open-air life, pastoral occupations or rustic merriment. The fact that wind instruments were debarred from Church music during the Middle Ages as being borne of the "world, the flesh and the devil" suggests that there was an inherent pagan quality about these instruments which rendered them unfit for religious worship.<sup>(1)</sup> Throughout this time, they were left to the minstrels, the jongleurs and the troubadours, and even until later played an important part in all kinds of secular activities "where the spirit of Pan rather than that of Phoebus Apollo predominated".<sup>(2)(3)</sup>

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- (1) There is, of course, with the exception of the organ; but this instrument was only used in a primitive way during the early history of music.
- (2) The Musical Companion, Edited by A.L. Bacharach. p.138
- (3) In the Pastoral Symphony Beethoven uses the basson and oboe amusingly in the Allegro - the peasants' merry making, Third Movement - where, according to Thayer, he deliberately caricatures a village-band known to him.

The long period of this association with rustic life undoubtedly explains much of the derived pastoral quality which wind-instruments possess, but this same quality also seems to be intrinsic to the nature of these instruments. The examination of one or two particular cases might throw some light on the problem in question.

Reed-instruments above all are recognised as being peculiarly pastoral in flavour. This may be partly explained by the fact that the note of similar instruments or their prototypes has been for centuries associated with the tending of animals and such rustic pursuits. But can we also claim that the timbre of these instruments is inherently pastoral? For example, does it resemble the cry of animals like sheep or cattle? The bleat of the sheep can be well-represented by our modern instruments.<sup>(1)</sup> There is the lower register of the clarinet (chalumeau), for example, or the oboe. The flute of which the Roman prototype was made from a leg bone, is also capable of producing low plaintive notes. Other animal sounds, like the lowing of cattle, or the stentorian bellow of the bull, may also be heard in the deep-throated notes of certain wind-instruments. Nor is it far-fetched to say that we may hear the croaking of frogs in the deep notes of the bassoon or fagotto. But such parallels seem accidental rather than inevitable, and must not be pursued too far. Certainly some instruments are better fitted than others to imitate the sounds of rustic life, but whether this is merely the result of coincidence, or whether

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Cf. The sheep-incident in Strauss's "Don Quixote".

these instruments have become thus inevitably associated with particular pastoral occupations because of their intrinsic qualities, it is hard to say. One simple and obvious explanation might lie in the fact that the materials for fashioning primitive rustic instruments - flutes, reeds and horns, etc. - were near to hand and were thus pressed naturally into service. They were usually of a convenient size and shape (e.g., the flute or horn) for carrying about. Moreover, a note of far-reaching carrying-power, yet not too startling, would be most suitable for use in tending sheep and cattle.

It is well-known that animals are peculiarly susceptible to musical sounds. But though experiments with different <sup>instruments</sup> have been made on the wild animals at Regent's Park and at Le Jardin des Plantes, <sup>(1)</sup> few systematic experiments have been carried out with domestic animals. The effect of music on the milk-production of cows has been noted in Germany, but no definite enquiry as to the effect of particular instruments on domestic animals has been made. It would be interesting to note the effect of the same notes played on such different instruments as the flute, the violin, the horn, trombone and the tin-whistle; on a flock of sheep accustomed to perform certain movements at the call of these notes on the tin-whistle. The best effects would depend on how far the different instruments could attract their interest and attention without terrifying them by their strangeness or loudness. Should the player be able to give a fairly close imitation of the original call,

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(1) H.F. Gosling, Music and Its Aspects.

he might deceive the sheep successfully. Thus the question of "habit" enters the case. The sheep who have come to connect a particular call of a particular timbre with a sequence of events would be most likely to re-act appropriately only to a close imitation of that call. Curiosity or fear might also influence their behaviour should the call seem unfamiliar.

The primitive cow-herd would use from experience a call on an instrument least likely to terrify the beasts in his charge. It is also likely that a sense of fitness as well as convenience might suggest to him that he should use a horn, for example, made from the actual horn of an animal,<sup>(1)</sup> rather than import an instrument from a distant place. He might also use a reed from a stream near-by, the hollow limb of a tree, or the bone of a dead animal.<sup>(2)</sup>

Whatever is the extent of the associative value derived from the connection of wind-instruments with the pastoral occupations I have mentioned, it is generally recognised that these instruments do possess a definitely pastoral flavour. Apart from these early associations which cling to them, wind-instruments also possess intrinsic value due to the calm, peaceful, breathy quality peculiar to certain notes of the modern instruments. Notes of this character inevitably recall

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(1) The Jews used the ram's horn.

(2) The flute, the oboe, the clarinet and the bassoon are all descended from the tibia family.

the breathing calm of the world of nature. Above all, the tone of the French and German horn - languid, mellow and strangely reminiscent of distant ages - seems more romantic than that of any other wind-instrument.

There is the objection, however, that the same type of instrument which played this important part in pastoral life, was also used for hunting, merry-making, and war-fare. The horn, the bugle, the fife and the trumpet (with the bag-pipes and the percussion instruments as well) are the instruments of war. The sound of these martial instruments may be reckoned as intrinsically war-like for as we saw in Chapter VIII, loud shrill sounds are in themselves threatening and intimidating, and are thus natural means of defence or attack. They are also thrilling inducements to warfare. There is a great difference between the loud resonant notes of battle and the chase, and the calm breathy notes which characterise pastoral music. It is mainly this greater intensity, and the clear, strident quality of martial sounds as opposed to the plaintive breathy tone of pastoral calls, which give their character to the martial group of instruments.

But often the same instrument can produce notes which belong to both types. The horn, for example, is both rustic and martial. Its long-sustained muffled notes are peculiarly in accord with the calm breathlessness of the country-side, while its brighter silver-tongued blast has a thoroughly

martial character. (1)

It must be borne in mind, however, that the associative value derived from the appearance of the instruments I have been discussing in connection with such different aspects of life has been the cumulative result of centuries. This added richness which music has gathered from so many sources is extremely important from the associative point of view. Timbre gives colour and emphasis to music; and even in absolute music we recognise unconsciously the derived value of different timbres, even though the exact origin and nature of these far-off connections are lost to view.

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- (1) Other wind-instruments possess this double timbre-character; in particular, the flute, the clarinet and the oboe. The low notes of the flute are cold and melancholy, its high-pitched notes are warm and brilliant. The oboe Rimsky-Korsakov has described as "artless and gay in the major, pathetic and sad in the minor". Clarinets may be either joyful or contemplative; bassoons on occasions are grotesque, mocking, sombre, or humorous.
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## 2. Music and Speech:

Between speech and that particular branch of music we call "song", there has always been the closest inter-relation. Not only does each form of expression proceed from the same organs, but it has always been a moot point as to whether song preceded speech, or speech song; or whether they both sprang simultaneously from a common parent. Another subject for speculation is the question whether the beginnings of music manifested themselves in song, or in some other way. The Oxford History of Music suggests that melody through vocal utterance was the first impulse to musical expression. It is true that effective instruments are comparatively recent and that the traditions of human song go far back. Nevertheless I cannot help thinking that primitive man was more likely to notice and enjoy sounds which he produced by means external to his own vocal organs - like the beating of a stick on a concave surface, the twang of his bow-string as the arrow left it, or the noise he might produce by blowing through a hollow reed - than to dissociate the sounds of his own voice from the feelings they expressed and to enjoy them as sound, or a rudimentary form of music. The first vocal utterances must have been so spontaneous and personal that it would be unlikely for man to take up that detached attitude towards them which is necessary to aesthetic experience. At first emotional utterance in song would be bound up with the expression of his own emotions, and song as art

would become dissociated from the actual experience only at a later date. But the attempt to solve the origin of music is a thankless task, and one which I have not attempted. It is not how music evolved which matters in this instance, but rather what music is, and how we come to enjoy it as a highly developed art or experience of beauty.

Speech is employed far more often as an aid to the practical necessities of life, or as an indication to others of our own feelings, than consciously in the service of art. Song, or rather, music, occurs usually as an artistic manifestation without any purpose other than to satisfy the demands of the inner or spiritual nature. Though the aforesaid initial connection between speech and song, due to the means by which they both come into being, is very close, there are other points of contact between these two forms of utterance. Common to both are variations in pitch, pace, intensity, and timbre. The sound-material is common to both speech and song; it is those qualities which give coherence and definiteness to this as it occurs in each of these two forms, that are different. The unifying thread in speech is coherence of idea, or logic; in song (vocal melody) there is a unity of musical ideas inherently connected in an organic unity of form.

The intimate connection between rhythm and form in music has been discussed in Chapter IV. In speech there is also present the same element of rhythm, but I shall call it "balance" in order to distinguish it from rhythm in music. Balance does

give a certain unity to a logical succession of words, different in kind from the unity of an idea which is imposed on them. The idea is presented in a logical sequence of words. But the words chosen to present that idea also have a certain balance. By balance I do not mean the exigencies of syntax, though this no doubt plays an important<sup>part</sup>/in making the meaning clear. There is a balance in the value and the number or extent of the words needed to convey that idea. This balance is determined partly by the limiting power of the breath, and partly by the memory. It would be interesting to see how long a sentence conveying a single idea could be made to last without confusing or expanding the meaning unnecessarily. Tests could be made to see what extent such a sentence could be uttered in a single breath, allowing no pause for emphasis, or for punctuation; and also to find to what extent such a sentence could be grasped as a whole of words without losing the unity of the idea.

The balance implied by the control of the breath is important with regard to speech. The fact that a similar scheme of balance also controls vocal melody is a point in favour of Spencer's theory that song developed out of speech, or at least of the theory that they developed side by side. This close parallel between the phrasing or balance of speech, and the phrasing or rhythmic form of melody is also important from the associative aspect. It is partly owing to this similarity of utterance and the parallel arrangement of phrasing in speech and song that music is regarded by many as a kind of

"language". The divisions of music into balanced phrases which unite to form musical sentences and paragraphs closely resemble the divisions of speech. Musical utterance is also impressive because its cadences resemble the rise and fall of the voice in speech. (1)

There are innumerable other points of similarity; among others, music, by the use of contrasting phrases, often appears to ask a question, and then to answer it. Beethoven's Sonata, Opus 10, No. 2, has often been likened to a conversation between two people. George Sand is also said to have described Chopin's Scherzo in B<sup>b</sup> <sup>minor</sup> as beginning with a question twice repeated, which is then answered, at first tentatively, and, after the third repetition, strongly and emphatically. Such parallels, however, are endless. This resemblance of musical phrases to speech inflections is only superficial. In music it is just as natural to balance phrases of contrasting character as it is to balance masses in sculpture, or colours and light and shade in painting. Notice, for example, how often composers follow a flowing cantabile theme, moving diatonically, with a living springing theme, whose notes move by leaps. Such contrasts make up a natural and artistic factor in the musical scheme of any work of music. Resemblance to the inflections of speech is accidental,

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(1) The vocal origin of modern European music in the church music of the Middle Ages is another factor which helps to account for the resemblance between the phrases of speech and the melody of today.

being mainly due to the principle of the need for variety, and to the fact that both speech and music employ a similar medium, sound, for expression.

It is because of the vocal origin of song that music of all arts is regarded as most intimately connected with man. That we can ourselves often re-express a musical theme created by another by means of such a personal method of communication as the voice, means that all musical experience takes on a derived personal significance. Music through song, becomes invested with all the personal emotions, the hopes and fears and aspirations, which are part of our very being. In no other aesthetic experience can the merely appreciative subject share so closely and so significantly in the original act of creation. By listening, only, so long as it approached the true ideal of aesthetic listening, the listener re-creates the music for himself. By merely humming a fragment from one of the mighty symphonies of Beethoven, he is able to give himself the joy of actually reproducing, though imperfectly, the music in physical fact. A single phrase ringing in his head may become the cue to the imagined experience of a complex work. Here the musical listener has the advantage over the lover of the representative arts. He can not only possess himself of the music in a way that the latter could never do, but he can give himself a rich experience by quite simple means. Would the lover of sculpture, for example, get the same satisfaction of

achievement and self-expression out of modelling a finger in imitation of Michael Angelo's "David"? And since the logical form of the statue is so much less obvious and inevitable than the formal relationships of music, he could not give himself a very successful imagined experience of this work from the recreation of so small a part.

This personal quality which music derives from its associations with speech, allied with its deeply-rooted connection with the sex-instinct and the opportunities which it gives for self-display, underlies the whole social significance of this art. For music is the social art par excellence. Wherever people assemble together to promote some common aim, or whenever they join in a universal expression of spiritual worship or exaltation or of national feeling, as in the celebration of a victory, or the mourning of a hero, music is the art best expressive of their united interests and feelings.

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