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A STUDY OF THE CONCEPT OF UNDERSTANDING
AS IT MAY BE APPLIED TO UNDERSTANDING MUSIC
IN MUSIC EDUCATION

DISSERTATION

Presented in Partial Fulfillment of the Requirements for
the Degree Doctor of Philosophy in the Graduate
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By

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* * * * *

The Ohio State University
1976

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CHAPTER I

UNDERSTANDING MUSIC:
A CONCEPTUAL DIFFICULTY

Introduction

During the past several years, there has been an increase in the quantity of texts appearing which either directly or indirectly allude to teaching the novice how to understand music. In these texts (of which a sampling will be used in this study), and one can only assume in the classroom, various approaches are being tried in an effort to create intelligent listeners to music.¹ Each text

purports to lead the uninitiated to at least a partial understanding in connection with music. However, as will be shown, there seems to be a disagreement among these writers as to precisely what is involved.

Questions arise as to what the music educators are referring when they speak of understanding music, i.e., what are the prerequisite skills, if any, to understanding music; what is the relationship of musical appreciation to musical understanding; what is the relationship of enjoying music to understanding music; and, is it necessary to read music notation to understand music? With these questions in mind, let us examine some of the prominent texts in which the term understanding is used.

Understanding Music Through Prerequisite Skills

Winold, in his book, implies a frame of reference to gaining an understanding of music when he says:

The basic approach of the books is through active musical experience. The student is encouraged to develop an understanding of the language and literature of music through analysis, composition, performance, and listening. Explanations of notation, terminology, and concepts and descriptions of styles, composers, and individual works are concisely written to allow maximum opportunity for the student to work directly with actual musical materials.

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1 (continued)


2 Winold, viii.
Thus Winold offers a categorical list of elemental factors which contribute to musical understanding. Through these step by step discussions, beginning with verbalization of the language, the student is led to the development of an intelligent listening skill. Through this listening skill, he will gain an understanding of music.

Pearman, Miller, and Bonney have directed their attention toward the direct development of certain skills that will lead to an end result, i.e., an intelligent musical individual. The following statements sum up their intentions quite well:

General music is a broadly comprehensive course supplying basic understanding required for the participation in some form of the art of music. In emphasizing general music teaching, the philosophy is that first rate musical skills and first rate understanding of the individual child music be combined in presenting musical materials.\(^3\)

The main objective here is the development of elementary teachers who are capable of dealing with music as a course of study in their classroom situations. With this in mind, goals are presented for the elementary teacher, who will in turn teach these goals to the elementary children. This will result in an understanding of music by all involved:

Goals are formulated on the basis of a long view toward the musical knowledge a pupil should have by the time he finishes the eighth grade:

\(^3\)Pearman, Miller, and Bonney, iii.
1. musical participation with others
2. listening with understanding to a musical work
3. interpretation of the notation of music by singing or playing
4. formulating value judgements of music
5. knowing the heritage of much of our western music
6. knowing performers and composers of music

It is difficult to ascertain, from the list or the text, the exact relationship of the individual goals to each other or to the final "product." In other words, can the learner achieve the second goal without accomplishing the other five? Further, can the learner master the other five and still not understand music?

Winold's list of prerequisites (page 2) is similar to the above, however, the two do differ in some respects. For instance, Winold speaks of composing music while Pearman, Miller, and Bonney do not; and the latter speak of the ability to formulate judgments while Winold does not.

Let us now move from these examples of prerequisite skills to understanding music to the disparity which seemingly exists between appreciation and understanding.

The Relationship between Appreciation and Understanding

Hoffer offers the following statement as his approach to achieving an understanding of music:

This book seeks to achieve three goals in the area of music appreciation. One objective is to provide information about music - its literature, styles, forms, vocabulary, and other aspects that contribute to a

4 Pearman, Miller, Bonney, 4.
basic knowledge of the art. A second goal is to develop the student's ability to listen to music intelligently and sensitively; he needs to hear what is happening as the sounds progress. The third objective is to increase his liking for music.5

Although the word understanding is not used by Hoffer except in the title of the book, evidently the reader is to assume a positive relationship between appreciation and understanding. One might even assume that the two words are interchangeable. Hoffer later explains how the book intends to achieve the three steps to a comprehensive "appreciation" of music:

First, it (the book) provides basic information that opens up the diverse field of music in a way that is both appealing and technically accurate. All major historical periods are presented, as are various forms and performance media—keyboard music, chamber music, art songs, electronic music, and so on. Jazz and many types of ethnic and popular music are also included.6

Hoffer says, later on, that, in order to understand music, the listener must have a thorough knowledge of its chronological historical development.7

Hickok speaks of understanding music as a prerequisite to an appreciation of music:

To appreciate the art of music fully, we must understand something of the materials from which music is made. Music may be described either as sound organized in time or as time defined by the sound that fills it. All music consists of two mutually dependent elements: sound and time. Any specific piece of music has a particular sound structure that creates its own time flow and time pattern.8

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5Hoffer, vii.
6Hoffer, vii.
7Hoffer, vii.
8Hickok, 1.
Miller differentiates between enjoyment and appreciation. However, in his explanation he speaks of understanding as an essential part of appreciation:

Enjoyment and appreciation are related terms but they are not synonymous. It is quite possible to enjoy music—that is, to receive pleasure from it—without understanding it or really appreciating it. It is also possible to understand the technicalities of a musical composition without full enjoyment. However, remember that to obtain the greatest enjoyment from music you must have some understanding of it, and that no matter how sublime an experience a musical performance proves to be for you, any additional understanding which you can bring to the music will enhance your ultimate pleasure.9

Miller would have us believe, then, that any "sublime" experience with music can be enhanced by some kind of "additional understanding" about music.

The Relationship of Enjoyment to Understanding

Other writers tend to use the terms enjoyment and understanding almost interchangeably. John White, in his text, makes little attempt to separate the two concepts:

There are many ways to listen. Musical enjoyment and understanding are limited only by the response of the listener, by the extent of his own experience, knowledge, and imagination.

There is no single correct way to listen, but the listener who most fully understands music is the one who listens most carefully, the one who experiences the physical, as well as the emotional, dramatic, and intellectual aspects of music. Hearing recorded music as background to other activities is not careful listening. In fact, it tends to inhibit our perception of music. Only when we listen to a performance with our minds as well as our ears can we begin to understand it.10

9 Miller, 1.
10 White, 1.
Perhaps the most widely used text which purports to lead the uninitiated into some sort of understanding of music is Joseph Machlis' book. We note here that the word understanding does not appear in the title of the text. However, in the explanation of the text and why it does what it does, Machlis alludes to his belief that without some level of understanding, there cannot be enjoyment. He further states that:

The mature music lover has no fear of knowledge about music. He realizes that the true source of the musical experience is not in himself but in the sounds. Consequently, whatever brings him closer to the sounds heightens his musical perceptions and his enjoyment. He is curious to know how the sounds are put together and why they do one thing rather than another. His information need not be as technical as that of the professional musician, but it demands some knowledge of the rules of the game.\footnote{Machlis, 5.}

This final sentence (above) is the key to Machlis' approach to understanding music. In other words, understanding music entails some knowledge of the structural elements and how they are manipulated by the composer. We might well have placed Machlis under an earlier category for this reason.

To continue, the assumption made above concerning the Machlis approach to understanding music is borne out by a later statement in his text:

It will heighten our perception if we know something about the elements of which music is composed, and the way that composers go about organizing tones into patterns and forms. We may inquire into the
forces that have shaped musical activity at various periods, the schools and movements within the art and their relationship to the social-cultural requirement. We should have some knowledge of the men whose genius enriched the lives of their fellow, of their style, and of their contribution to the art. This information by no means constitutes the meaning of a musical work, but it will help each one of us to fathom that meaning for himself.\textsuperscript{12}

Ulrich also makes a close connection between the two concepts of enjoyment and understanding, when he says that the purpose of his book is "to guide the listener in his search for musical enjoyment and understanding."\textsuperscript{13} Both Ulrich and Machlis are in close agreement as to what is involved with musical understanding as evidenced by the following statement by Ulrich:

But if we accept musical experiences passively and simply permit them to happen to us, we close off the pleasure of becoming involved—of allowing ourselves to become wrapped up in music. And involvement presupposes knowledge. To know how a musical effect is made, to know why a composer writes as he does, to know what to expect in an unfamiliar composition—that knowledge is an essential part of the musical experience. Further, that knowledge helps us to recognize subtle musical nuances that counter with music calls upon the mind to a greater or lesser degree.\textsuperscript{14}

Ulrich supports his position, as outlined above, through the use of a baseball example, citing the fact that one must know the rules of the game to enjoy it to its fullest. Here, another concept is introduced, i.e., knowing. The relationship between knowing and understanding is an interesting one

\textsuperscript{12}Machlis, 6.
\textsuperscript{13}Ulrich, vii.
\textsuperscript{14}Ulrich, 4.
and quite vital to our present endeavor. Suffice it here to simply raise two related questions: Can one understand something and not also be said to know it?; and the reverse, can one know something and not also be said to understand it?

The relationship of Reading Music Notation to Understanding

Although reading music notation could be placed under our earlier category of prerequisite skills, it is such a major point of contention that it deserves a separate discussion.

Copland deals directly with the understanding of music in the following manner:

All books on understanding music are agreed about one point: you can't develop a better appreciation of the art merely by reading a book about it. If you want to understand music better, you can do nothing more important than listen to it. Nothing can possibly take the place of listening to music. Everything that I have to say in this book is said about an experience that you can only get outside this book.15

Thus, Copland infers that the major prerequisite to understanding and appreciating music is listening. Reading music notation does not seem to be important enough to even mention at this point.

In a text that was designed for the student, albeit a college student, beginning a study of music, Wink has said:

The student should learn how to deal directly with any music he encounters. He should learn how to deal with musical sound itself, learn how to listen,

15 Copland, 3.
how to make sense of what he hears, how to increase his perceptive powers.\textsuperscript{16}

There is little or no reference to music notation reading throughout the text in terms of it being a priority factor in leading the beginner in music to an enjoyment of understanding of music.

Oscar Thompson makes the following statement in his textbook:

This is a book of what and not how. It construes as for the ear and not the eye. It relies on the practical proof of everyday experience that music in its most complex forms, as well as its most simple, is understood by multitudes who depend entirely on the ear and not the eye, and it contends that the understanding of music of necessity begins with the music itself - whatever the perspective in which it may be viewed by reason of a broader or a narrower cultural outlook - and that this imagination, or the accumulation of extra-musical data, is an effort to determine 'means'. In italicizing the word begins, the writer trusts he has left himself elbow room in which to move in otherwise obvious, literary pictoral, imitative or dramatic purpose. To begin, otherwise, is to deal with something else than music. To understand otherwise, is not to understand music.\textsuperscript{17}

Once again we have a strong preference to placing notation reading low on the priority list of skills, if indeed placed on it at all.

Other writers we have referred to, i.e., Pearman, et al. (see pages 3 and 4) and Winold (see page 2), place music notational reading in a prominent position on the list of skills that lead to an understanding of music.

\textsuperscript{16} Wink and Williams, ix.

\textsuperscript{17} Thompson, 13.
Summary

In the preceding pages we have discovered a strong lack of agreement among music texts in their approach to leading the novice to an understanding of music. The distinctions between appreciation, enjoyment, prerequisite skills (especially music notational reading), knowing, and understanding are not consistent. The precise skills involved, even among those who list them, vary in importance. Finally, the conditions for understanding music are, to say the least, questionable. That the concept of understanding in relationship to music is mired in a state of ambiguity is thus evident.

Problem Statement

There is not an agreement among musicians in general and music educators specifically, as to what is meant by understanding music. Therefore, the methods employed to arrive at any "understanding" are diverse and vary in accordance with whatever goal is contrived. This disparity affects the public school curriculum. In addition, it does not allow for the construction of an agreed-upon base leading to the music education of our youth. Until music education as a profession is presented with and accepts a uniform description of terminology, in this case "understanding," there will continue to be a lack of communication concerning the preparation and training of our progeny.
Purpose of Study

The present endeavor will first conduct a conceptual analysis of the concept understanding. Concurrently with the analysis, references will be made to some of the prominent epistemological literature which deals directly, or indirectly with understanding.

Second, will be a conceptual analysis of the concept music. Concurrently with this analysis, reference will be made to prominent literature which attempts to arrive at an effective description of music.

Third, application will be made, through discussion, of the results of the analysis concerning understanding and music, as the two concepts may qualify each other. This will result in establishing some parameters of understanding music as it relates to music education. The treatment of music education will be primarily through some of the activities of teaching music. Concurrent with this, reference will be made to prominent literature which refers to music education and the activities of teaching.

Finally, a summary of the endeavor, which will include ramifications for curriculum in music education.

Delimitations

Due to the scope of both the philosophical and practical application of the term understanding, it is necessary to
place limits on our current endeavor. There seems to be, among others, two approaches to philosophical analysis, i.e., conceptual analysis and linguistic analysis. To clarify the position we are taking, in our effort to utilize these two approaches to analysis, the following discussion is offered.

It may first be necessary to clarify our usage of the word "concept" and linguistic and conceptual analysis. Wilson has stated that:

As we have noticed, our use and understanding of a word are closely related to our concept of a thing. We form concepts by learning the uses of words, and it can be seen what concepts we have formed by seeing what we understand by words: putting it another way our use and understanding of language act both as guides to forming concepts, and as tests of concepts when formed. Thus we could truly say that the logical limits of a concept may be the same as the limits to the range of meaning of a particular word: for instance, the limits of a man's concept of justice are the same as limits within which he uses and understands the word 'justice'. This is not to say that the concept and the meaning are identical: but it is to say that they are, as it were, parallel to each other, or that they cover the same logical range of the word with which the concept is normally associated.

Thus, thinking with concepts may be in some measure, a process of thinking with words and their use. To put it another way, a child might form a concept by considering that all things with leaves to be in one group (after having someone point out several trees with leaves and indicating

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19 Wilson, 58.
that they were indeed trees). His concept of trees, at this point, might allow anything with leaves to qualify. This process of forming a concept may result in ideas which do not agree with most adult's usage of the concept trees, and his concept may be altered as he learns more about "things with leaves," i.e., some things with leaves are not trees, but bushes; and that not all trees have leaves. Further, a definitional statement like: a tree is a woody perennial plant, with one main stem or trunk which develops many branches, might clear up the question. However, the question, 'is a rose tree a tree or a bush,' is a conceptual question which is not accommodated by the definition. Wilson, in an effort to further clarify conceptual analysis states that:

Behind the notion of 'how to analyze concepts', therefore, there lies the still more general skill, 'how to talk' or 'how to communicate': and to employ this skill we have to learn above all to recognize and enter into the particular game which is being played. Thus, the person who yields to the desire to moralize, who cannot talk about concepts but only preach with them, is essentially not playing the game: it is a form of cheating. Similarly the person who insists on analyzing every single concept referred to in a statement is, so to speak, overplaying the game: like a soccer player who insists on dribbling skilfully in front of the goal when he should be taking a shot at it. To communicate, then, involves recognising the particular game and playing it wholeheartedly.20

We might, then, consider the following description as the meaning of the word concept, i.e., "a concept is the locus

20 Wilson, 21.
of inferences permitted by the various uses of a term."\textsuperscript{21} This description is succinct as well as being suitable for the discussions in the following chapters.

It would, however, be presumptuous, if not impossible, to follow the above statement with the claim that what will follow is a consideration of all of the sets of inferences and/or uses concerning the concepts of understanding and music. What we will claim is that, subsequently, we shall consider some of the exemplary circumstances in which we find the concepts of understanding and music used.

Our method will be one of employing techniques of analysis as explained by Wilson, i.e., (1) Invented cases: The use of examples to clarify a position; (2) Related cases: The consideration of other concepts which are related to the one under analysis; (3) Social context: Since we are concerned with how man may use the concept, we may need to consider circumstances in a social context; (4) Practical results: A consideration of real and/or concrete results of a position taken; and finally (5) Results in Language: The use of clarification statements, such as "well, if you mean abc by so-and-so, then the answer is this; but if you mean xyz, then the answer is that.\textsuperscript{22}


\textsuperscript{22}Wilson, 23-39.
The above techniques will not be identified individually as the analysis proceeds, but will be used as they are necessary for accomplishing the task.

Three final delimitations need to be expressed. (1) Primarily, the investigation will be confined to conceptual analysis as outlined above. No attempt will be made to deal directly or indirectly with universal philosophical questions pertaining, for example, to man's need for understanding and/or music; (2) The questions raised are not meant to be necessarily the results of knowledge gained by scientific experimentation, but rather, might act as a basis for scientific experimentation; and (3) It is not the purpose to form new areas of knowledge and/or analysis, but rather to utilize a legitimate analysis technique as it might be applied to understanding music.
CHAPTER II

THE CONCEPT OF UNDERSTANDING

Introduction

As we established in Chapter I, music educators are not in agreement about what constitutes an understanding of music. This disparity can be traced to a lack of agreement and general comprehension of the ideas involved with the aggregate concept. In order to establish a basis for consideration of understanding music, it first seems necessary to examine the two concepts separately, i.e., (1) understanding and (2) music.

The following discussion will examine the concept of understanding separate and apart from music per se. Later, in Chapter III, we will consider the concept of music.

When we speak, generally of understanding anything, to what are we referring? What, indeed, are the parameters comprising understanding? Communications do rely on a prior agreement of how and under what circumstances the parts of language are to be used. Wilson states that

our use of signs in general, and language in particular, is based on the conventional agreement about how they should be used.¹

The approach, then, to this discussion of understanding will be as follows:

First, a discussion and analysis of some of the parameters associated with the use of the concept understanding; and

Second, a summarizing treatment of the parameters of the concept understanding which will, in effect, present the description of understanding.

**Parameters of Understanding**

"Being Understanding" versus "Understanding"

In dealing directly with the term understanding, Martin makes an initial distinction between understanding something and being understanding:

In any discussion of understanding it is important to recognize that there is a difference between understanding something and being understanding toward someone, or that he is being understanding, is to say that he is taking a certain attitude toward someone. I will call this being understanding and will use the subscript 'a' when referring to it to remind the reader that it is an attitude. I will not attempt here to give a general analysis of this attitude. It is sufficient for our purposes to point out that being understanding toward someone involves looking or at least trying to look at things through the other person's eyes and being sympathetic toward him. If someone takes this attitude only on occasion or whether it permeates his behavior to such an extent that it can be a general trait of character, one thing is certain: this sort of understanding is not what the activity of explaining to someone necessarily aims at.²

In the final sentence above, the key word is necessarily. It allows that the converse may be true, i.e., understanding_a may indeed be "what the activity of explaining something to someone is aiming at." ³ In other words, it is possible to be understanding_a of something through an understanding brought about by explanation. Or, one may understand Q and be understanding towards Q. In addition, one may be understanding towards Q and not understand Q. The point here, as Martin states, is that the two positions, i.e., being understanding_a towards something versus understanding something, are neither necessary nor sufficient conditions for each other.

That the term understanding is used in both contexts, i.e., understanding_a and understanding is evident. Thus, it seems necessary to make a clear distinction when involved in the activity of teaching someone to understand.

**Understanding and Performance**

Later, in her discussion, Martin speaks directly to the concept understanding:

To be sure, understanding a performance requires some competence but this need not be competence in executing the skill in question. If a fan is to understand a baseball game he must know something about baseball but he does not have to be able to play baseball.⁴

³ Martin, 143.
⁴ Martin, 148.
This seems logical insofar as it goes. However, to solidify the position we must examine the idea in a more fragmented manner. If, indeed, it is not necessary to play baseball to understand it, what are the requisites? There seem to be clearly two issues in question, i.e., understanding the idea itself. In other words, we must separate the concept itself from the physical realization (execution) of the concept. Let us take the following example: It is possible to imagine or conceive of a game without the game ever having been performed. An adult, in an effort to occupy his time and utilize some objects he has on hand, may think through a competitive game. The "rules" and manner of play can be ideated without the game ever having been played. True, the activities involved would have to be within the scope of the experience of the individual, although not necessarily related in this way previously. However, it remains that we would certainly concede that the concept of the new game exists although it has not been physically executed.

Thus, actual participation in the performance of a particular act is not a necessary or sufficient condition for understanding per se. This is not to say that performance may not lead to understanding, only that it may not be necessary.
Internal and External Understanding

A popular approach to understanding involves a two-fold consideration, i.e., internal and external understanding. This in turn may involve seeing connections and, in this case, two different sets of connection. We may, at this point, describe connections as the relations existing between things that depend on, involve, or follow each other.

Internal understanding is involved with taking that which is to be understood (X) in isolation. For example, if we were to consider a baseball as a separate entity apart from the game in which it is employed, we could arrive at an understanding of its structure (interrelation of its parts) and general nature. Connections are involved only in terms of the internal structure of X. That it may or may not be connected, in some instance, to a larger complex is unimportant for this kind of internal understanding.

External understanding involves seeing X as it may have possible connections to something apart from itself. To stay with our baseball example, the ball becomes an entity which is integrally related to the sport of baseball. In other words, we would strive for an understanding of the ball as it relates to its use in the game, making

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5Martin, 152+.
it a baseball. It must be of a certain size, it must manifest a certain resiliency when hit with a bat or bounced, and so forth. The person who understands the relationship of the ball to the game of baseball, i.e., the role it plays, need not necessarily concern himself with the internal structure of the ball itself.

This separation of external and internal understanding may be essential for application through teaching. Whitehead explains it in the following manner:

... In the first place, understanding always involves the notion of composition. This notion can enter in one of two ways. If the thing understood be composite, the understanding of it can be in reference to its factors, and to their ways of interweaving so as to form that total thing. This mode of comprehension makes evident why the thing is what it is.

The second mode of understanding is to treat the thing as a unity, whether or not it is capable of analysis, and to obtain evidence as to its capacity for affecting its environment. The first mode may be called the internal understanding, and the second mode is the external understanding.6

The idea of composition and that a thing may be composite is introduced by Whitehead in his previous statement. We may take this as meaning that the thing is divisible into component parts which may be examined as to their function.

The implications of the separation of internal and external understanding are also important when applied to

music. As we shall see, in the subsequent chapter, some sort of understanding in music can be achieved without examining the integral parts within a musical composition, but rather the musical composition as an entity which may relate to other comparable entities.

**Knowing versus Understanding**

Many investigators feel a confusion when trying to cope with understanding versus knowing, and indeed the two do find overlapping usage in the education endeavor. Perhaps, since defining concepts is not the primary concern here, it might be helpful to indicate the range of the word know. Scheffler has supplied this view:

> . . . the range of the everyday concept of knowing is very wide, including familiarity with things, places, persons, and subjects, competence in a variety of learned performances, and possession of ostensible truths on matters of face as well as faith, the fallible items of science and everyday experience as well as the alleged certainties of mathematics and metaphysics.7

He goes on to say that the concept of knowing is also related to "notions of understanding." 8 It is this relationship that we intend to explore.

Scheffler begins a discussion of understanding as it relates to knowing in the following manner:

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8Scheffler, 2.
But perhaps to understanding something is reducible to knowing it, so learning to understand X is learning to know X. While, however, there may indeed be contexts in which knowing X conveys the connotation of understanding X, it does not seem plausible to make the proposed general reduction. A person may say without contradiction, 'I know the doctrines of the existentialists, but I don't understand them'. Or we may say of a child, 'He knows Newton's Laws (or Shakespeare's plays) but doesn't yet understand them'. The limits of such knowing are perhaps elastic, involving at times familiarity, recognition, acquaintance, and ability to formulate, paraphrase, and use, but not in every case including understanding. What constitutes understanding if it is not simply familiarity or skill of a certain sort is a separate question. Some have suggested that understanding involves something analogous to perception: seeing the point. Or it might be construed to include having explained or paraphrased the doctrine in question in special terms, initially intelligible to the person. Or, again, it might be thought to require a certain degree of experience or maturity (as in understanding Shakespeare's plays). However, we interpret it, it seems not to reduce to the subject of know.9

Here, then, is an attempt to separate the two terms, know and understand. We might readily agree that a general reduction of the term knowing does not result in the claim understanding. We may, indeed, say of a person that he knows the doctrines of the existentialists, but does not understand them. A close examination of what Scheffler is saying brings an interesting result. If we say that a person knows X but does not understand X, there are three possible contingencies: (1) A person may be able to recite the symbols which have been agreed upon to represent the ideas involved with; (2) A person may know the ideas

9Scheffler, 17.
which are involved with X and not know the symbols which represent them; and finally, (3) A person may know the symbols and know the ideas which are represented by these symbols.

In the first instance, i.e., "a person may be able to recite the symbols which have been agreed upon to represent the ideas involved with XX"; we may safely say that under these circumstances he may not necessarily know X. What he does know are words and/or phrases which may or may not have a meaning to the individual reciting them. Further, it is safe to say that a person may be able to recite the Gettysburg Address and not understand, in Scheffler's context, the import of the words he has learned. Many school children have been subjected to this type of memorization during their tenure in public school. A person can recite the words and not understand their meaning individual and/or collectively.

In the second instance, i.e., "a person may know the ideas which are involved with X and not know the symbols which represent them." Here things get rather complex. Is this possible? We may say of a child that he knows the rules of conduct in his home that are expected of him. He may even abide faithfully by them and not be able to verbally relate these rules to his younger brother or anyone else. We could say, then, that he understands what his correct course of action is but does not know the
verbalization of these rules. In any event, we generally would not argue that the child did know X. Let us take another example. It is possible for an individual, through trial and error, to work out a behavioral pattern which exemplifies all of the rules of behavior in Christianity, without ever having been exposed to the teachings of Jesus Christ or anyone familiar with those teachings. This person may then lay claim to understanding the ethical behavior of the Christian but does not know it as fulfilling the ethics of the Christian religion per se.

In the third instance, i.e., "a person may know the symbols and know the ideas which are represented by these symbols"; may we then say that in fulfilling both requirements, the person not only knows X, he also understands X? For if the child knows the rules of behavior in his home, can express them verbally correct to his younger brother, then he may lay claim to some understanding without general contradiction.

The point of this short reflection of Scheffler's argument is to present an example of an attempt to separate know and understand. Although his defense is not necessarily as detailed as it could be, the conclusion seems defensible.

A man may know that the light bulb works when the wall switch is turned to the "on" position. Further, he
may know the procedure involved with electrical circuits which cause the bulb to glow under certain conditions. In other words, he knows that the light works and he knows how it works, but still may not know why it does indeed produce that result. Thus, he knows X (in terms of knowing that and knowing how) but does not necessarily know X (in terms of knowing why).

These three modes of knowing, i.e., knowing that, knowing how, and knowing why, may be further described in the following manner. Scheffler states that a rather convenient 'formula' may be used "by labeling the that use propositional and the how to use procedural."\(^{10}\) The inference being that due to the usage of know that, it may be stated as a proposition, i.e.,

\[ X \text{ knows that } Q \]

if and only if

(i) X believes that Q
(ii) X has adequate evidence that Q
(iii) Q

Further, there seem to be no procedural steps implied by the above proposition. In other words, if X believes that the sun is gaseous and has adequate evidence that it is gaseous, and it is indeed gaseous; he does not need to know how it came to be that way or why it stays that way.

\(^{10}\) Scheffler, 21.

\(^{11}\) Scheffler, 21.
i.e., he needs not to know of any procedure involved, nor is there necessarily any skill involved.

It might serve well to interject here that there is a strong and weak use of know. The strong sense would be as stated in the illustrative proposition above. The weak sense can be attained by deleting the second provision, i.e., :\(X\) has adequate evidence that \(Q\).\(^{12}\)

Know how and know why may be classified together under the procedural category. Although they are subject to a propositional statement, they seem to be associated with the possession and/or knowledge of a skill, a competence, or a technique. One may know how the light bulb is connected to the various parts leading to the wall switch (competence, in terms of knowing the procedure). In quite a different way, he may know why the electric current operates as it does when those connections are made (in terms of knowing the technique). This implies a procedural knowledge of electrical current.

In any event, the claims of knowing that, knowing how, and knowing why do not necessarily support any subsequent claim of understanding that, understanding how, and/or understanding why. One may know that \(X\) and not understand \(X\); one may know how \(X\) and not understand \(X\); and one may know why \(X\) and not understand \(X\). We may say that knowing

\(^{12}\)Scheffler, 21.
is a necessary condition for understanding, but not a sufficient condition.

Know can be separated from understanding in terms of a "general reduction." That the edges of the two concepts are indistinct is not to be denied.

Appreciating versus Understanding

Understanding and appreciation, as we saw in Chapter I, may also be questioned in terms of their relationship. Scheffler approaches this subject thusly:

The case seems even stronger with respect to what we have called attainments. For, whereas active propensities often have strictly associated techniques (e.g., a person who enjoys swimming and swims regularly knows how to swim), attainments do not have strictly associated techniques. A person who appreciates music is not properly said to know how to appreciate music; one who understands quantum theory is not well described as knowing how to understand quantum theory. (It would certainly seem strange if someone said that he knew very well how to appreciate music but didn't choose to, or that he knew how to understand quantum theory but hadn't in fact understood it lately.) Certainly there are techniques embedded in attainments: One who understands quantum theory knows how to read, and one who appreciates music knows how to listen. But these bits of know-how are not strictly associated; they are not equivalent to knowing how to understand, and knowing how to appreciate, respectively. Understanding and appreciation cannot, it would seem, readily be said to be an exercise of technique or know-how. For there seems to be no such thing as an understanding know-how or an appreciating know-how. Much less can learning to understand or to appreciate be suggested to reduce to mere acquisition of such know-how.\(^{13}\)

\(^{13}\) Scheffler, 19.
Thus, Scheffler indicates, in effect, that one can appreciate X without being aware of some aspects of knowing X (in terms of know-how and perhaps know-why). Let us examine this more closely. (A musical example might serve well here, however the connection between this examination and the concept of music will be explored in detail in Chapters III and IV). A person may be said to appreciate the sight of a wooded area in the Fall Season. The effect of the myriad colors are seen and appreciated. We may say that the person need not even be aware of the individual colors, leaves, trees, etc., to appreciate the cumulative effect. If the total scene has the proper effect on the viewer, appreciation may be present. Know-how and/or know-why, may or may not be present.

Thus, appreciation is present, but what of understanding? If a person appreciates X, does he necessarily understand X? Let us return to our "wooded area in the Fall Season." Appreciation of the colors and total scene indicate an ability to discern the sight and re-act to it favorably.

In other words, appreciation may be said to require knowing that something exists through a perception of it, i.e., seeing it, hearing it, etc., etc.; that it is there and that one may re-act to it. Understanding, on the other hand, requires some knowledge of the object, either internally or externally.
Misunderstanding versus Understanding

The teacher often speaks of the pupil who misunderstands some explanation given on a subject under study. Because of the implication involved, it may be well at this point to discuss this term. Ryle, in his discussion of knowing how explains it this way:

. . . Misunderstanding is a by-product of knowing how. Only a person who is at least a partial master of the Russian tongue can make the wrong sense of a Russian expression. Mistakes are exercises of competences.14

On the surface, Ryle's assumption seems to be logically strong, but does it break down when held to its converse? For instance, if an English speaking person were trying to communicate with a Russian speaking person, other problems may arise. Let us say that while the Russian was speaking, he uttered one or more words which were similar to English words but had other meanings completely. The English person may then completely misunderstand the intent of the Russian without any knowledge of the Russian language at all. Each of us brings to every encounter certain sets of prior information and/or conditioned responses. Whether or not these "sets" are directly related to the subject of the encounter may not be important.

Suppose that a small child sees a painting for the first time, and this painting happens to be abstract in nature. He could quite possibly think it to be the result of an accident by someone who spilled various colors of paint. Thus, he would not understand this to be a painting at all. He would, we may say, misunderstand the painting.

Have we, indeed, found a point at which Ryle's argument breaks down? In our first exception above, the English speaking person did not know Russian when he misunderstood what he heard. However, he did know language, and it was through this partial knowledge of all language that he misunderstood. In the second instance, the child had to have experience with spilling paint or something similar, prior to this encounter, to misunderstand the abstract painting. Thus, in the sense that we all bring prior sets of information to any encounter, which may or may not be correctly applied to the activity, we may say that Ryle is correct.

Ryle goes on to say:

It is obvious that where misunderstanding is possible, understanding is possible. It would be absurd to suggest that perhaps we always misconstrue the performances that we witness, for we could not even learn to misconstrue save in learning to construe, a learning process which involves learning not to misconstrue. Misinterpretations are in principle corrigeble, which is part of the value of controversy.15

15Ryle, 60.
We may need to take precaution here than an incorrect inference be applied to Ryle's statement, i.e., that misunderstanding is possible only when an on-going learning process is involved that is directly related to the thing to be understood. That misunderstanding is part and parcel of the process of understanding may or may not be true. It is entirely possible that the English speaking person may not be involved with learning Russian, or even any further English, which would in effect "clear up" the misinterpretation. The misunderstanding which has occurred may indeed remain so indefinitely. Misunderstanding may occur because of prior sets of information not directly related to the thing misunderstood.

Conceptual Grammar

In some ways, we have dealt with several of the parameters of the concept of understanding. In one respect, what we are talking about is establishing instances in which the concept is, or may be, used. This in turn could result in grammatical use of the concept. In an effort to establish some of these circumstances, Hamlyn presents the following argument:

... an understanding of terms like 'red' and 'green' will involve far more than the knowledge of what sets of instances they are applicable to. The understanding in question presupposes a prior understanding of what color is, and this implies in turn something about the kinds of relations
that exist between or among colors . . . A child could not be said to understand what 'red' means if all he could do was to apply the term in more or less the right cases, and he had no understanding of cases in which it is not right to apply the term but rather to apply others. Thus it is not a simple matter of fact that red things exclude green things. To understand the concept of color that we in fact have is to understand that this sort of thing must be so.16

If we profess to know X by knowing what X is not, do we in effect understand X? The child could be said to identify the color red by being able to decide what it is not. In other words, if shown the color green, he would be capable of grammatically stating that it definitely is not the color red. Further, in all instances he is able to properly identify the color red. This process is further discussed by Hamlyn:

The understanding of a concept in its relations to other concepts in the way indicated is an understanding of what Wittgenstein calls the "grammer" of the concept. Wittgenstein used the expression "grammer" in this context because, since concepts have their expression in words, the misuse of a concept reveals itself in a misuse of words, in a failure to conform to the rules for the use of words. Such a failure is in a sense a failure to conform to grammatical rules.17

This proper "grammatical" use of the term understand can only be a verbalization of the concept and does not necessarily indicate understanding. The process of labeling and subsequent use of grammar is important for communication, but not tantamount to understanding. As we

17Hamlin, 272.
evinced in an earlier discussion, understanding is not dependent on being able to verbalize the evidence or even to physically perform it. Hamlyn goes on to say:

... An understanding of that "grammer" may well presuppose an understanding of things well outside anything that is explicitly mentioned in the statement in question, just as the understanding of the grammer of an expression in the more ordinary sense of "grammer" may presuppose an understanding of the kinds of relationship that the expression may have to quite other kinds of expression, and perhaps to language as a whole. The phrase "grammatical truth" emphasizes the part that language and linguistic considerations play in our understanding; beyond this, what is conveyed by its use is the same as that of the phrase "conceptual truth."\(^\text{18}\)

and finally:

... we can come to know about conceptual truths on authority rather than by understanding.\(^\text{19}\)

Implicit in the above statement is that understanding may involve a process separate and apart from linguistic discussion and some form of philosophic analysis. Conceptual truth may be arrived at through acceptance of statements made by an authority and also through philosophic analysis of some kind. However, the epistemological study, i.e., study of the theory of knowledge seems to be essential to arriving at a level of successful communication and it is the process by which we are able to progress in our thinking. Granted, once we understand X, it is expedient to properly label the information conceptually and

\(^{18}\text{Hamlyn, 273.}\)

\(^{19}\text{Hamlyn, 287.}\)
store it for future reference. To say that we understand X, is one thing; for others to know what we mean by this statement is quite another.

**Summary**

Let us, at this point, look at understanding in reference to the parameters discussed earlier. First, the distinction between being understanding and understanding. It is clear that when we speak of someone as being understanding towards X, this does not necessarily entail that that person understands X.

In order to make application of the concept understanding, we may need to clarify further the basic assumption the term itself implies. The necessary condition for understanding may be stated thusly: X can be said to understand Q only after the know that condition has been satisfied (either in the weak or strong sense). This is not to say that X does understand, but only that know that is a necessary condition for it to happen.

We may further state that necessary conditions for understanding are knowing why, knowing how, X can demonstrate Q, and X can verbalize Q. In other words, if X knows why Q, X may claim to understand why Q; if X knows how to Q, X may claim to understand how to Q; if X can demonstrate Q, then X may claim to understand how to demonstrate Q; and if X can verbalize Q, then X may
be justified in claiming to understand how to verbalize Q.

The point here, is that when we speak of understanding, it may be necessary to supply referents to locate the mode of understanding to which we are attending. Thus, the above list may not be inclusive.

One must be aware of the kinds of considerations which are dictated by the particular perspective involved with internal and external understanding. This separation needs to be made when speaking of understanding X. In other words, if we desire to investigate internal aspects, we may do so without necessarily making connections through external understanding. Thus, one cannot say that understanding X necessarily involves both internal and external understanding. For clarification, it would be helpful to supply the particular referent being used in the understanding activity.

Appreciation of something may be present without understanding. When we speak of appreciating something, we cannot assume that there is any measure of understanding present or necessary, unless a particular referent is supplied which will describe exactly what is understood.

Finally, "conceptual truths" which were arrived at through some analysis techniques may be accepted by someone else on authority rather than by actual understanding of the activities involved.
To facilitate our future discussion in terms of understanding music, we shall consider the previous conditions to be the general intent of the concept understanding.
CHAPTER III
THE CONCEPT OF MUSIC

Introduction

In the succeeding pages we shall engage in a discus­sion of the concept music. In order to arrive at a satis­factory comprehension of the composite concept understand­ing music, it seems necessary to consider music per se. The consideration of the concept music, however, is com­pounded by a rapid succession of events that have occurred during the past half century. These truths, in effect, have brought about a re-examination of not only music, but all of the arts.

According to Cross, Lamm, and Turk, the turning point occurred during the first World War.¹ In speaking of the results of this upheaval, they say that:

The art of the post, be it literature, music painting, sculpture, or architecture, had failed mankind, they felt, and their disillusionment was reflected in a movement which condemned, satir­ized, and scoffed at the art of the past, laughed at reason, and raised the banner of anti-art.²

As the authors go on to explain, the "anti-art" move­ment became a paradox as it opened up avenues for new forms

²Cross, et al., 286.
of artistic expression and thus only succeeded in widening the art horizon.\footnote{Cross, et al., 287.}

This isolated movement in itself might not have reached prominence had it not been for the concurrent development of a world-wide electronic communication system. Radio and later television became an integral part of civilization. Today's events in one part of the world could be transmitted immediately to any other part of the world. Man could sit in his home and observe a concert occurring at that instant in England, France, China, or anywhere else.

Also, and of equal importance, the advent of recording equipment allowed man, for the first time, to "crystallize" music. A performance can now be captured and reproduced almost intact. In addition to this, video-tape "crystallized" not only the sounds but also the sights of a performance. These electronic advances have, unquestionably, had a strong influence on music.

There has also been increased activity on the part of ethnomusicologists to discern activities in other cultures that may be labeled music. The discovery and acceptance of many highly advanced activities has clouded, even more, the already vague concept of music.
Procedural Approach

Due to the diverse nature in which the concept of music has been used in reference to various results of the activities precipitated by man, we shall conduct our discussion in the following manner:

First, a discussion of the acoustical considerations of sounds as they originate and are subsequently transported to the human ear;

Second, psychological ramifications occurring as a result of the ear receiving these sounds (mentioned above), and their ultimate transmission to the human brain;

Third, a discussion of the sociological aspects of the concept music;

Fourth, a conceptual analysis of the concept music in an effort to establish some of the uses of the term; and

Finally, a summary of the preceding discussions, with the establishment of a composite description of the concept music through its usages.

Parameters of Music

Acoustic Treatment

Few, if any, would argue that music is somehow involved with sounds. The nature of these sounds and how they are created would seem to have a bearing on our consideration of the concept music. Therefore, the following discussion will deal with the acoustical basis of sound itself.
Culver makes the following statement regarding sound:

...sound is any vibratory disturbance in a material medium which is capable of producing an auditory sensation in the normal ear. We are here dealing with the objective cause of a sensation, and not with the sensation itself. All such disturbances have their genesis in some body which is undergoing vibratory motion. Such a sonorous body may be solid, a liquid, or a gas. The vibratory motion of the sounding body is usually conveyed to the auditory receptor, the ear, by means of a wave motion or a gas mixture of gases such as the air, though solids and even liquids may take part in such a transfer.  

Notice that Culver attaches the word sound to vibrations which are merely capable of producing a sensation in the human ear. John Backus would differentiate this point by saying that "small but rapid changes in the ambient pressure produce sensations in the ear which we call sound." In other words, vibrations "capable of producing an auditory sensation in the ear" are not sound until the human ear receives it and reacts to it. The scientist deals with the concepts of wave forms, vibrations, and frequencies. However, these physical properties manifest themselves as some form of sound only after the ear reacts to their reception.

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6Culver, Acoustics, p. 18.
For our purposes, then, we shall consider sound a manifestation brought about by the reaction of the ear to a vibratory disturbance. An important point here is that neither writer equates sounds with music. A sound, or sounds, could result by dropping a tin pan on the floor, but we would not generally call it music. True, the resultant sound could be used in the context of a musical setting and be considered to be performing a function in the music. Further, when used in this context, it may be called a musical sound. We only have to consider the myriad percussive instruments used in music to get this perspective.

Psychological Considerations

Once the ear has received the stimulus and in turn transmits the information to the brain, any sort of definitive discussion is problematic. As yet, neuropsychologists can only make educated guesses concerning the actual processes involved, and there is not always agreement. With this in mind, let us proceed with our discussion.

One explanation of how the brain copes with the information it receives from the ear, which in turn has received the physical phenomenon of sound waves, is proposed by Roederer:

Music obviously pertains to the sense of hearing, and there are . . . characteristic features of this sense that are relevant to the understanding of the
mechanisms of music perception. First, while our nervous system generally operates on the basis of extremely short electric pulses transmitted from one nerve cell (neuron) to another, hearing may be the only sense in which the actual time distribution or time succession of these pulses is used explicitly as a sort of microscopic 'Morse Code' to transmit information from the sense organ (the ear) through the auditory nerve to the brain.

Second, the two halves of the human brain, the cerebral hemispheres, play distinctly different roles in the process of hearing, depending on the particular task that is being performed. Language perception and control of speech (no doubt the most important and most complex tasks of the human auditory system and the principal contributors to its sophisticated development) are highly localized functions, accomplished principally in the left hemisphere, the major hemisphere in ninety-eight percent of all persons. The other hemisphere handles the performance of a series of control operations, the recognition . . . and processing of all sounds not associated with language, such as music. Overwhelming evidence of this remarkable partition comes from studies of brain-damaged patients. For instance, one finds countless cases in which damage localized in the major hemisphere has caused impairment of language perception and speech but has not affected music abilities.

To say the least, the above explanation is interesting and does make a rather logical attempt at answering many questions concerning the precise activity of the brain when coping with sounds. In any event, of what the sounds are comprised and how they are organized seem to be two factors essential in the process of assigning the label of music, or some other label.

Perhaps the recognition of some sort of organization in the sounds received is one of the first steps toward identifying music. In an investigation of perceptual theory, Lora makes this statement:

Because persons need to organize all stimuli in their environment into some kind of structure or pattern in order to store it for future decision-making data, and because in addition persons structure this data in as simple and economical a way as possible, it follows that musical motives, primarily by their repetitive rhythmic organization, function as a significant element from which meaning and value arise in one's perception of music.8

Thus, we may say that the human being tends to "impose" a pattern on the sounds he perceives. Further, the physical phenomenon of sound waves are received by the brain after being transmitted by the human ear. Then, through some process in the brain, man makes a discrimination as to what is music and what is not.

Sociological Considerations

We have stated, above, that the human being plays a role in the determination of what is music and what is not. Blocking seems to summarize this general concern of what the role is thusly:

Music is a synthesis of cognitive processes which are present in the human body: the forms it takes,

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and the effects it has on people, are generated by the social experiences of human bodies in different cultural environment.\footnote{John Blacking, \textit{How Musical is Man}, (Seattle: University of Washington Press, 1973), p. 89.}

Hughes gives us this view:

\begin{quote}
The final meeting of music and consciousness is conditioned by two factors, the nature of the individual and the nature of his society. The musical nature of the individual is very largely determined by the society in which he lives. That society is molded to some infinitesimal degree by what each individual is and desires to be. On the one hand there is the solitary and inviolable meeting of the individual sensitivity with music, on the other, the group pattern which impels towards likeness, conformity, a common experience.\footnote{Charles Hughes, \textit{The Human Side of Music}, (New York: Da Capo Press, 1970), p. 5.}
\end{quote}

And finally, from Coker, we have a description of music with a slightly different vantage point:

\begin{quote}
\ldots music is a product of human skill the medium for which consists of characteristics of sound and rhythm, which are selectively organized into sonorous motion that signifies— as well as effects— organic attitudes and other subjects and values, either musical or otherwise.\footnote{Wilson Coker, \textit{Music & Meaning: A Theoretical Introduction to Musical Aesthetics}, (New York: The Free Press, 1972), p. 24.}
\end{quote}

In any event, music is a human endeavor that organizes sound into patterns that are perceived and internally determined to be acceptable and desirable. As such, it is subject to conditions placed upon it, either consciously or unconsciously, by man.
Historical Considerations

If we accept the proposition that music is a human endeavor, it might be well to briefly investigate the early development of what has generally come to be called music. This, in effect, will allow us to "strip away" many of the issues which tend to cause some confusion.

There is some disagreement among historical scholars as to just exactly how music evolved. However, the current thinking seems to be expressed rather well in this generalization by Alfred Sendry:

Prior to becoming an art, music most certainly played a role in daily life. It need not be emphasized that different peoples, during their long cultural and social development, during the various stages of human civilization, utilized music in manifold ways. The motivating force behind musical practice is a decisive factor for and understanding of its artistic, social, spiritual, and ethical role among the folk cultures of the world.\(^{12}\)

In recent years, the development of ethnomusicology has supported many suppositions made by historians concerning this "early development" of music in culture. Malm makes the following statement in a discussion concerning the role of music in the cultural life of the Australian Aborigine:

One of the first admirable aspects of Arnhem Land music is its meaningfulness to culture. Music is used throughout an aboriginal's life to teach him what he must know about its place in the world of

nature and supernature. As a baby he is encouraged to dance and sing about everyday tasks. At puberty he learns his first karma songs - about the totemic plants and animals of his clan and the history and mythology of the group - which belong to his lineage and have specific melodic formulas and modes that distinguish them from other groups' songs. In the bachelors' camp he learns more light-hearted songs which are the basic entertainment media for the band. When he marries and enters further into group responsibilities, however, it is the karma songs that are the central part of his education and his source of strength in times of trouble. His maturation can be measured in the esoteric knowledge he has acquired through song. And as an old man he knows that his honor is based partly on his mastery of the secret songs of the band.

In dealing with African music, in this case music found south of the Sahara, Bruno Nettl makes the following observation:

The feature of African music, that has been most widely discussed is rhythm, and evidently it has indeed been more highly developed in Africa than have some other features or elements of music... to some extent we may say that African rhythm is also more highly developed than the rhythm of other cultures. The latter statement must be made with caution, for certainly it would be possible for a composer of Western music to put together a piece with a rhythmic structure much more complex than that of any African piece. He could do this - especially with the techniques of electronic music. But the level at which African music seems to be rhythmically more developed is that of listener and performer perception. It is doubtful whether a listener (Western) could, without special training, perceive and reproduce the most complex structures in Western music, especially without a score, simply from sound. With training he might, of course, learn to match the performance and perception of African musicians. But this sort of training is not

present in our culture, while it is - though not always formally - a part of African Negro musical training, for both the listener and the performer.\textsuperscript{14}

Thus, we may surmise from these discussions that music, or at the very least some kinds of sounds, have been used by man in functional ways in his culture. Indeed, he continues to do so in some parts of the world today in much the same manner.

Summary

Before we proceed with our discussion, it seems advantageous to summarize the previous points. The concept music is involved with sounds and thus may be considered an aural art. Sound seems to be a perceived manifestation brought about by the reaction of the ear to a vibratory disturbance. The sound waves are received by the brain after being transmitted by the ear. When people receive sounds in their brain, they tend to hear a pattern in the sounds, whether or not it was intended. This, in effect, might make sound organization, through patterning, an essential part of musical sounds. Further, any sound may be considered a "musical sound" when used for a purpose in a musical activity.

Music is a human endeavor and subject to conditions placed upon it, either consciously or unconsciously by man.

Finally, music (or some kind of sounds that have been identified by ethomusicologists as musical) has been, and still is, used by man in functional ways in his society.

**Conceptual Considerations**

Our discussion at this point, will direct itself toward some of the various uses of the concept music. When discussing the concept of music it is advisable to consider how it is used in the language.

We frequently hear that concept analysis is simply the use of metaphor and thus not worth the time developing. Green makes the following statements in this regard:

It can be argued that this brief study is not an instance of philosophical analysis at all: it is merely the development of a constructive metaphor. We should not be put off, however, by this observation. If it is worth distinguishing genuine analysis from the mere exploration of a metaphor, then it is also worth pointing out that genuine analysis cannot get very far without the employment of metaphors. Indeed, it may be that metaphors are necessary if we are to think about important matters at all. No major philosopher in the history of the subject has escaped their use and no major field of knowledge in the modern world can do without them. Indeed, were we to act on the dictum that metaphors be purged from our thought, our language would be so impoverished and the field of our vision so narrowed that thought would be too crippled to explore the vast expanse of human interests. In fact, without the use of metaphor, I could not have written that last sentence. Of course, if it would prevent the framing of such a sentence, then you might think the prohibition of all metaphors would be an improvement in the world. But in the long run, it would be an intolerable constraint.15

In any event, metaphoric use of the concept music can result in some confusion in the understanding process. Thus, we have framed the following discussion.

We frequently hear of someone having to "face the music." This use of the word, in this context, may or may not be referring to some musical activity. If a person has committed a crime and subsequently is apprehended, he would expect to face the consequences of his action, or "face the music." Generally, this use of the word music is a negative one and denotes some dire results. In any event, the supposition that, when making the statement--facing the music--some musical activity is involved is not generally acceptable.

Thus, if one were to "face the music," he would generally be involved with an activity other than a musical one.

We also hear the phrase that something is "music to my ears." In this case, there may be a closer relationship to the concept music per se. Many people associate music with something which is pleasurable and/or enjoyable. This connotation has resulted in some instances of relating the two activities. For instance, if a man were to receive the news that he had received an appointment to a job that he had been trying very hard to secure, he might say that this news was music to his ears. We would certainly not generally take this to mean that he had heard something musical.
In the music teaching activity (which will be discussed in Chapter V) there are two main contexts in which music is used. One is the aural phenomenon of the sounds, the other is the written notation (notes, rests, etc.) which is used to symbolically represent the aural sounds. Both uses are found in the context of musical activity. However, they do refer to entirely different manifestations. If someone were to say "hand me the music" or "read the music," it is clear that they are referring to the notation of the sound and not the sound itself. On the other hand, if one were to make the statement "listen to the music," he would certainly be referring to the aural phenomenon and not the notation.

As a matter of clarification then, hereafter we shall refer to the aural phenomenon as **music** and the notational representation of it to be **music notation**. Further, when used in the metaphoric context of "face the music," or that something is "music to my ears"; a musical activity may or may not necessarily be involved.

**Music as Movement**

That the concept of **movement** is associated with music seems to be rather evident, i.e., sections of symphonies are called movements, etc. Hughes has expressed the idea that music is "a time art which can only be comprehended by remembering what was heard in relation to what is
heard."\textsuperscript{16} When the mind begins receiving a transmission of sounds, it may retain the "message" over a period of time. Earlier (page 44), we spoke of patterning that seems to be part of the same process. Jan LaRue gives us the following account:

Music is essentially movement; it is never wholly static. The vibrations of a single sustained note, the shock waves of a slipped staccato induce motion even in isolation. Any sounds that follow may then confirm, reduce, or intensify the embryonic sense of movement. At the same time that a piece moves forward, it creates in our memories sounds to which its later movement inevitably relates . . . \textsuperscript{17}

The use of the concept of movement in connection with the concept of music may be due to the way the sounds are transmitted and the way they are perceived by the mind. The exception would be when we perceive more than one sound at the same time. (This phenomenon is generally labeled a chord and a series of these sounds, usually with a musical key center, is called harmony.) To continue, this may create the psychological effect of movement. Stravinsky gives the following account:

\ldots music is based on a temporal succession and requires alertness of memory. Consequently music is a chronological art, \ldots Music presupposes

\textsuperscript{16}Hughes, \textit{Music}, p. 5.

before all else a certain organization in time, a crononomy - if you will permit me to use a neologyism.\(^{18}\)

So movement in time seems to be an effect that may be associated with music. That this effect is pycschological appears to be obvious. However, few would deny that the effect is certainly discernible. We do not consider it strange when stating that a piece of music requires a certain length of time to complete. Thus, this passing of time, while the musical sounds are being received, may account for the feeling of movement.

**Noise versus Music**

Let us now move to another aspect of musical sound. When the ear perceives a series of single sounds, they may or may not have definite pitches, either all the same or each one different. Usually, those which do not have at least some discernible pitch are not considered to be music in themselves, that is, separate and apart from a musical setting (see discussion on pages 41-42). The exception might be the drum "music" of some cultures, i.e., the African examples cited on pages 46 and 47. However, even in this instance, ethnomusicologists are not in agreement that it is, or could be considered music in its entirety. Further, drums are used extensively in musical activities

and thus may be considered musical instruments (see discussion on page 46 for the implications of this). Culver explains the phenomenon in this way:

All sounds may be classified roughly into two groups, viz., noises and musical sounds. While there is no strict line of demarcation between these two types of sounds, a noise commonly consists of a group of non-periodic pulses arising from the irregular vibration of a body or group of bodies. Such a sound does not manifest a definite pitch, and usually produces an unpleasant auditory sensation. On the other hand, a sound which we classify as musical gives rise to a pleasing sensation and is characterized by being periodic and having a definite pitch.\(^{19}\)

An important part of the above statement by Culver is that there "is no strict line of demarcation between these two types of sounds," i.e., noises and musical sounds.\(^{20}\) Thus, the idea of definite pitch, when applied to musical sounds, may require a great deal of re-defining in terms of the myriad indefinite pitch instruments (not to mention some electronic sounds) used in a musical context throughout the world.

There is, incidently, another connotation that may be associated with the concept noise. When an individual is concentrating on one particular thing, any sound that tends to interfere with the task at hand may be classified as noise by that person. In this context, sounds that

\(^{19}\)Culver, Acoustics, p. 55.

\(^{20}\)Culver, Acoustics, p. 55.
ordinarily might be classified as music, would then be an interference factor, and might be called noise. Some might consider that once a series of sounds has qualified as music, it should be considered thus in any circumstance. However, if indeed, the "music" is not on what the individual is concentrating, and the "music" does interfere, it may be classified as noise.

Hindemith, speaking from the viewpoint of a composer of music says

Before we investigate further, we must agree on one point: music whatever sound and structure it may assume, remains meaningless noise unless it touches a receiving mind.21

The above viewpoint of noise versus music allows for the following situation. If two young men were seated in a room where music was being played, we could have completely diverse reactions to the same sounds. If, for instance, one of the men was reading a book and the sounds were interfering with his concentration, he might classify the sounds as noise. The other man, intent upon listening to the sounds may classify them as music. Thus, the attitude of the listener has a direct bearing upon his decision as to whether or not some sort of sounds are music at any given time.

Sound Quality

Each sound wave that is produced by a vibrating body has particular characteristics. These characteristics, which are manifested through different waves is discerned by the ear, it will be traveling with some level of intensity. Culver explains this intensity in the following manner:

As applied to sound, we may define the intensity of the sound wave as the average time rate at which acoustic energy passes through a unit area normal to the direction of wave propagation.\textsuperscript{22}

In any event, when the sound wave is discerned subjectively by the mind it is labeled loudness. Further, the sound wave will have some duration and some range of pitch. Thus, the mind is capable of differentiating between sounds produced by various vibrating bodies. This characteristic quality of sound is, in effect, another subjective description called timbre, or tone color.

It is the timbre which allows us to distinguish between a piano and the human voice, a flute and a tuba, etc. Since it would certainly seem strange for a piano to sound like a tuba, or anything else except a piano, we may consider loudness, duration, pitch level and timbre as necessary parts of a musical sound and even of music itself.

\textsuperscript{22}Culver, \textit{Musical Acoustics}, p. 21.
Melody

If, in the reception of a series of single pitch sounds, (or at least a discernible single pitch) the mind is able to discern a relationship of the sounds to one another, it may be labeled melody. Thus, whether or not the sounds are of different pitch levels or the same, the melody label may still be properly applied.

We do not consider melody, or harmony (see page 51), as necessary conditions for music to exist. For instance, a series of chords (harmony) sounding without any apparent melodic connection, might still be called music. Further, a single melodic line, without a harmonic structure, might also be called music.

Musical Instruments

The concept of music instruments which, in effect, are the sources of timbre, present an interesting phenomenon. Throughout the history of man, certain tools have been used by man to produce "musical sounds."23 These tools were used to produce sounds which fulfilled the need of the performer and listener at that time. After each instrument was conceived, and was indeed used as a musical instrument, it was then accepted, generally, as a current musical instrument.

The Conditions of Music

Let us return to our earlier discussion concerning music in the Twentieth Century (see page 39). As a direct result of many artists losing their faith in traditional ideas, in addition to new possibilities of sounds in general and musical sounds in particular, questions were (and still are) being raised. To many people, John Cage became the symbol of the "avant-garde" in music. The following statement serves to clarify his position:

I believe that the use of noise to make music will continue and increase until we reach a music produced through the aid of electrical instruments which will make available for musical purposes any and all sounds that can be heard. Photoelectric, film, and mechanical mediums for the synthetic production of music will be explored, whereas, in the past, the point of disagreement has been between dissonance and consonance, it will be, in the immediate future, between noise and so-called musical sounds. The present methods of writing music, principally those which employ harmony and its reference to particular steps in the field of sound, will be inadequate for the composer who will be faced with the entire field of sound. New methods will be discovered, bearing a definite relation to Schoenberg's twelve-tone system and present methods of writing percussion music and any other methods which are free from the concept of a fundamental tone.  

Later, in commenting on the use of the term music, Cage states that:

... if this word music, is sacred and reserved for eighteenth- and nineteenth-century instruments, we can substitute a more meaningful substitute term: organization of sound.

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25 Kostelanetz, Cage, p. 55.
There has been a controversy over whether the "music" written by John Cage should in fact be labeled music, and it is still going on. However, it may be that Cage has a problem, not in getting society to accept his "music," but in getting society to accept his musical "instruments" as capable of producing musical activity. We stated earlier (see pages 55 and 56) that people tend to identify as musical activity that which is played on accepted musical instruments. It has seemed to be Cage's experience that the converse does not hold.

Toward a Description of Musical Activity and/or Music

In effect, our attempt at a description of musical activity and/or music will be an aggregate treatment of the entire preceding chapter. For clarification, we shall use the term musical activity to indicate simply the aural presence of sounds which may be identified as musical; and when speaking of the aural presence of musical sounds discernible as a musical composition, i.e., concerto, symphony, song, etc., we shall use the term music. That the edges of the concepts music and musical activity are in a state of change may be evident. However, based on our previous discussion we may say the following:

The concept of musical activity is involved with sounds and thus can be considered an aural activity. These musical
activities have been used by man in his cultural activities since civilization's earliest beginnings, and he has participated in the management of these sounds. Thus, musical activity is a human endeavor, and as a human endeavor, musical activities are subject to conditions placed upon it by man.

With the possible exception of certain metaphorical contexts, i.e., face the music and music to one's ears; we may assume that a musical activity is involved with the usage of the concept music. Further, the distinction between music and musical notation is advantageous for better communication.

Musical activity involves sounds which seem to have a patterned movement in time. These sounds have a characteristic nature involving timbre, pitch, duration, and loudness.

The distinction between musical activity and noise activity is, in the final analysis, determined by the listener. In addition to this, melody and/or harmony are sufficient but not necessary conditions for musical activities and/or music to be present.

Finally, due to the "breakdown" of "traditional" ideas about musical activities and music, ascribable partly to the work of ethnomusicologists and partly to men like John Cage, the concepts of musical activity and music are in a state of change.
The point is that once an instrument has been accepted as a musical instrument, most, if not all, sounds produced with it are called musical sounds. To take a current example, if one were to play a series of single sounds on a piano, or a series of chords, they may be identified as musical by the general listener, whether or not they are related melodically or tonally.

Summary

Before beginning our summary a further point of clarification is in order. Up to this juncture, we have used three terms in connection with our subject, i.e., musical activity; musical sounds; and music. Further, they have been used rather synonymously. It will serve our purpose hereafter, to make a distinction between the use of the terms.

Therefore, when speaking simply of the aural presence of sounds which may be identified as musical, we shall use the term musical activity. When speaking of the aural presence of musical sounds discernible as a musical composition, i.e., concerto, symphony, song, etc., we shall use the term music.

Generally speaking, when using the concept music in the context of certain phrases and circumstances (metaphors), i.e., (1) the case of someone "having to face the music"; and (2) speaking of some information as being "music to
one's ears"; we cannot assume that any musical activity is occurring. As a matter of fact, most of the time it would be occurring. Further, the distinction between music and music notation seems essential to a good communication.

Movement in time seems to be a phenomenon effected by the on-going perception of sounds which we associate with music. Further, the difference between musical sounds and noise sounds is a difficult distinction to ascertain. In fact, the final decision may, in many instances, be determined by the listener.

Timbre, loudness, pitch, and duration, may be considered as necessary conditions for the presence of musical activity. If the musical activity is received by the listener as a series of discernible single pitches, we may call it a melody. In addition to this, if we perceive more than one sound at the same time it is called a chord; and a series of chords, usually in a musical key center, is called harmony. Melody, and/or harmony are sufficient, but not necessary conditions, for a musical activity to be in evidence.

Finally, if an instrument has been generally accepted as a musical instrument, most, if not all, sounds produced with it may be called a musical activity.
CHAPTER IV

UNDERSTANDING MUSIC

Introduction

We have thus far concerned our discussion with understanding per se and music per se. The task to which we shall now address our activity is one of applying the concept of understanding to the concept of music. This application will permit us to investigate some of the sets of inferences and/or uses concerning the concept of understanding music.

Thus, our discussion will consider the following points: (1) Understanding music; (2) The internal and external understanding of music; (3) The relationship of performance skills to understanding music; (4) The appreciation of music versus understanding of music; (5) Knowing in relationship to music understanding; and finally, (6) A summary of the endeavor.

Understanding Music

We shall begin with understanding music. Is this possible? Let us consider the mother who, in an effort to "communicate" with her teenage child, adopts a specific attitude towards the "sounds" consistently emanating from the radio in the teenager's room. The mother has found that the more she
complained about the "noise," the more adamant the child becomes about playing the music. This rift seems to have caused a general lack of communication between the two. The mother, in reviewing the situation, decides that in order to somewhat resolve the problem, she will accept the fact that the "noise" on the radio may sound like "music" to her child. Further, she may adopt an understanding of attitude towards the actions of her child in listening to the "music." Thus, we may say that she understands her child's activities and thus may accommodate the "sounds" as being "music."

In the above example, there is not necessarily any understanding of the music itself or the activities of the child, by the mother. However, she may now be understanding of towards her child's activities, which include some participation in or with the "music," and thus is making an effort to resolve the differences between her child and herself.

The point here is that understanding musical activities and/or music is not the kind of understanding that necessarily involves any sort of comprehension or insight into the music itself.

The Internal and External Understanding of Music

Internal and external understanding, when applied to music may have several ramifications. Let us first speak to understanding music from an external frame of reference. We established earlier (Chapter II) that external understanding
involves seeing the thing to be understood as an entity which may or may not relate to other entities.

If we agree that external understanding is indeed possible, we may now endeavor to make application to music. The musical activity we shall use, for convenience, is a comparatively short melody (see page 48, Chapter III) being performed. A child may perceive the melody as a single unit. Whether the melody is composed of shorter length sounds or longer length sounds, or any other component consideration is not necessarily a concern of the child as he hears the melody. The melody may have a contour which can be described as beginning on a medium pitch level, moving up for a short span of time, and then returning to the original medium pitch level for the ending. This melody could be defined as an arc melody. If the child is able to label the melody consistently correct each time he hears it, we may say that he has a know that understanding. If, in the course of a series of discriminatory exercises involving hearing not only arc melodies but other kinds, he is apprised that all of the examples are melodies, he will soon become cognizant of the fact that all melodies do not necessarily have an arc description.

Thus far, the child has become aware of the concept melody as a separate entity. In addition, he may have an understanding of the melody in terms of application of the term. If, in a continuation of this activity, the child is
presented the melody in external connection activities, i.e., in contest with an accompanying harmonic structure, he may learn the function of these entities as they relate to each other.

Thus, the child understands that the concept of melody is an entity in itself, and may stand alone, apart from other musical activities. Further, he may understand how and why it relates to other musical activities. This approach to understanding, viz., external, could also be used in connection with more complex music, i.e., movements in a symphony. The only determining factors would seem to be the discriminatory capabilities of the child, and in what state of learning readiness he might be.

The important point here is that the child has understood the melody as a concept in relationship to other musical activities. There seems to be no need for understanding the melody internally. By way of explaining our meaning here, let us examine the internal aspects of the concept melody. If a child is presented with an aural realization of a melody, he may, as we pointed out, hear it as a single thing. This experience may be altered from the previous example in the following manner. If the melody is performed in a staccato fashion, or at least through some separation of the pattern into individual sounds, the child may be made to realize the relationship of individual sounds to the total melody. In other words, although it may be perceived as a single thing,
the melody is actually composed of individual sounds performed one after the other in a series. We could also examine pitch levels of individual sounds involved. Without any regard to information outside of the melody itself, these insights would constitute some measure of internal understanding. Thus, the child could understand how and why the component parts of the melody relate to each other in forming the melody, separate and apart from any necessity of understanding how and why the melody may relate externally to other musical activities.

We may say, then, that internal understanding and/or external understanding of music can be separate and not necessarily conditional upon each other.

The Relationship of Performance Skills to Understanding Music

In the above discussion, the child heard the melody, was able to determine information about it, and, in general, may be said to have understood it from an internal and external frame of reference. Further, there was performance implied in the "experiment" because we may assume someone or something produced the aural phenomenon called melody. The child, however, in understanding the concept of melody, did not become involved with performing the melody itself.

Although performance skills may lead the child to some kind of understanding, i.e., understanding how to perform,
it does not seem necessary for all understanding of music.

Appreciation of Music versus Understanding Music

When we speak of someone appreciating music, we imply that the person knows that the music exists and has placed some favorable value on the music. This position, i.e., appreciation, does not necessarily involve any understanding of the music itself.

Understanding music implies some knowledge of knowing how and/or knowing why, either externally or internally; while appreciating music implies only that the music exists and the listener places some favorable value on it. A person may understand a melody, he may understand it internally and externally. However, this in no way implies that he appreciates, i.e., holds in high esteem, the melody.

Knowing in Relationship to Music Understanding

As we stated above, a person may know that music exists, and come to appreciate it simply through perceiving it and placing some value on the experience. However, this does not necessarily imply that he understands the music. Although knowing that the music exists (either in the weak or strong sense) is a necessary condition for understanding, it does not seem to be sufficient condition for the claim—understanding.
In our earlier discussion of knowing versus understanding (Chapter II) we considered the claim that "a person may know X and not understand X." When stated in the context of a musical activity, we may get the following results: (1) A person may be able to recite the symbols agreed upon to represent the concept of a melody; (2) A person may know the melody and not know the symbols which represent it; and (3) A person may know the symbols and know the melody which is represented by these symbols.

If applied to the discussion as explained in Chapter II, we will find that a person may know that a melody exists and not know how and/or why the melody came to be a melody. Know, in the context of a musical activity, in this case a melody, can be separated from understanding in terms of a general reduction.

Summary

When one claims to be involved in the activity of arriving at an understanding of music, the following conditions seem to be necessary for the claim to be clear and/or acceptable:

(1) A differentiation between understanding and understanding per se is advantageous to arriving at a common goal in relationship to the activities of music.

(2) A referential stipulation as to whether internal or external understanding of the thing to be understood is
being attempted. Further, a recognition of the possible separation of these two seems essential.

(3) The realization that performance of music is not a necessary condition of some sort of understanding in music.

(4) Appreciating music and understanding music are not necessary or sufficient conditions for each other.

(5) The distinction between knowing that, knowing how, and knowing why, and the realization that knowing and understanding are related terms in some cases, but may not be used as being synonymous in all cases.

(6) Finally, for one to claim understanding of anything in general and music specifically, it seems necessary to stipulate a referential frame of reference. Understanding and music are complex concepts requiring careful avoidance of generalized claims which cannot be logically defended.
CHAPTER V

UNDERSTANDING MUSIC AND MUSIC EDUCATION

Introduction

Earlier we indicated that music is a human endeavor. Thus, part of any understanding music must be associated with man in his role as a social being and an entity in society. Our society has determined that their progeny will receive their education in a formal setting. This formal educational system has traditionally included some form of music in the curriculum.

For the most part, the curriculum involved with music in the public schools has been called music education. Cady, in an effort to define this complex endeavor has said that:

Music education is the practice of, the participation in, and the study of the process involved in the teaching and learning of music within educational institutions in order to fulfill three fundamental objectives, namely, the transmission of the cultural heritage in music, the acculturation of the individual to his musical environment as a participant, and the development of the individual's aesthetic sensitivity, as these may be achieved under the influence of constraining factors.¹

Since the meaning of a word, i.e., definitions, may be determined from the particular frame of reference of the person doing the defining, some problems might arise. For instance, from our position there seem to be several conceptual questions that arise as a result of the above definition. Some of these might be: Is music education involved with understanding?; We might assume so, thus we might ask "what role does understanding play in the 'transmission' process; the 'acculturation' process; the 'development' process; and finally, "does one need to understand to be 'aesthetically sensitive?'" Other related questions might be as follows: "What is the relationship between appreciation and 'aesthetic sensitivity?'; and "what part of an 'acculturation' process comprises teaching; what part comprises indoctrination; what part comprises instructing; and finally, what is the relationship between these activities, if indeed there is any.

It is not our purpose here to become involved with the questions of concept directly related to Cady's definition of music education; the point was to simply iterate the kinds of conceptual questions to which definitional statements may be subjected.

Keeping in mind the perils of definitional statements, we might offer the following description: "Music Education comprises the activities of teaching as they are employed
to lead the learner toward an understanding of music.

(The term music is used here in its broadest sense to encompass music and music activities as described in Chapter III.)

Two primary questions which might arise from an examination of the above description are (1) What are the activities of teaching; and (2) What might we mean by understanding music? Thus, the following discussion will be concerned with first, a short description of the activities of teaching; and second, a treatment of the uses of the concept understanding music as it may relate to the teaching of music.

The Activities of Teaching

Green has divided teaching into three categories which he calls "the logical acts"; "the strategic acts"; and "the institutional acts." Further, he lists some of the activities which would be appropriate to each heading:

The logical acts
1. Explaining
2. Concluding
3. Inferring
4. Giving reasons
5. Amassing evidence
6. Demonstrating
7. Defining
8. Comparing

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The strategic acts
1. Motivating
2. Counseling
3. Evaluating
4. Planning
5. Encouraging
6. Disciplining
7. Questioning

The institutional acts
1. Collecting money
2. Chaperoning
3. Patrolling the hall
4. Attending meetings
5. Taking attendance
6. Consulting parents
7. Keeping reports

The above lists are not intended to be all inclusive, but rather to be a representative list which may show that what teachers do can be broadly characterized into three discernible categories. Further, the logical and strategic acts of teaching are represented as being essential to the activity of teaching, while the institutional acts are not.

Let us assume that the teacher utilizes the above logical and strategic acts of teaching in an effort to create a class-room atmosphere which would allow the maximum amount of learning by the students to take place. It should be pointed out here that the actual learning that takes place may range from very little, if any, to the optimum amount. Thus, the intended results of these principles of

\[^3\text{Green, 4.}\]
procedure may fall short of the teacher's intended results.

The factor with which we are concerned is the claim that may be made in terms of the result of the learning situation. In other words, if the teacher makes the claim that the purpose of the teaching activity is simply that the students will learn the information at hand, two inferences can be drawn, i.e., knowing and understanding. In any event, understanding may be implied, although not necessarily, as an end result of the activities of teaching. Therefore, let us now direct our attention to understanding music as it may arise in the teaching activity.

Understanding Music in the Teaching Activity

Let us say that a music teacher is attending to a course at the college level in which the students are prospective elementary school classroom teachers (as opposed to music specialists); further, that these students will be expected to teach music independently, or at least give teaching support to a music specialist in the classroom.

What might we expect to be some of the intended results of the activities to which the above class would attend? In answer to this question, the following list is offered: We might expect them to

1. learn the basic terminology associated with music and music activities;

2. learn to read music notation;
(3) develop some basic skill in listening to music discriminately;
(4) develop some basic skills of performance;
(5) demonstrate an ability to create an atmosphere in which elementary children may learn about music and musical activities.

The question to which we will concern ourselves is: What role does understanding play in each of the intended results of the above listed activities? As a means of answering this question, let us restate the above list incorporating the question of understanding into each:

(1) Do we mean by "learning the basic terminology associated with music and musical activities" that one should understand the terminology?;
(2) Do we mean by "learning to read music notation" that it includes understanding music notation?;
(3) Do we mean by "developing some basic skill in listening to music discriminately" that it includes some understanding of the aural sounds?;
(4) Do we mean by "developing some basic skills of performance" that it include understanding of the skills of performance?;
(5) Do we mean that demonstration of "an ability to create an atmosphere in which elementary children may learn about music and musical activities" that an understanding of this action be included?
Few would deny that many music teachers have some desire to impart a measure of understanding to their students. Certainly we would include understanding music as a part of any endeavor of teaching music and/or learning music.

The above questions were not framed to be answered individually, but were designed to show the relationship of understanding to the possible end results of the course in music teaching preparation. The point is that as long as the participants involved, i.e., teacher and student, are clear as to what they are to understand and what understanding should result, learning may be facilitated. To further illustrate the issue here, we shall examine the first question above (page 67) more closely:

(1) Do we mean by "learning the basic terminology associated with music and musical activities" that one should understand the terminology?

We established earlier (pages 24-29, Chapter II) that a person may know X and not necessarily understand X. Thus, when a student is involved in a process of learning terminology in music, it does not seem to be enough that he be able to use the term in more or less the right place. In other words, if a teacher successfully gets the student to properly use a concept in grammar, i.e., "a quarter note receives one pulse when a four is the bottom number in the
time signature"; does he necessarily understand what a quarter note is? The answer lies in the fact that there first must be some evidence that he understands what the quarter note is or understands why the symbol represents a quarter note. Thus, the weak sense of know does not satisfy the requirements of understanding.

If, on the other hand, the above student is able to identify the quarter note and give some sort of evidence for his decision, i.e., its relationship to half notes, whole notes, etc., he may be demonstrating an understanding through making external connections.

To iterate, to "know" the terminology of musical activities requires only knowing that. If we desire that the student understand the concepts of terminology he must be required to give evidence of understanding.

A question, framed conversely, may also bear examination, i.e., Do we mean by understanding music that we want the students to know the music? Let us examine this in the classroom situation. A student may say "I know how to place my fingers over the right holes to play the melody on the recorder, but I just can't seem to make my fingers do it properly." Thus, the student may indeed know how to finger the melody correctly but does not have the physical dexterity to perform the task. Would we then say he does not understand how to do it?; probably not because this supposition does not logically follow, as we have shown.
The point here is that both student and teacher need to be aware of what kind of knowing and/or understanding will suffice in an evaluation situation, or as an outcome of the endeavor.

If a teacher should happen to claim that knowing how implies being able to perform, then the evaluation of the student's "progress" in the course will depend on how well he can perform the melody on the recorder. This would seem to hold true no matter how well he understood how to perform the melody. The student, in effect, could fail that part of the course because he "didn't know how to perform," when in reality he did. In effect if the teacher had separated knowing how and/or understanding how from the physical performance, perhaps a more fair evaluation of the student's activities could have resulted.

Understanding Music - Ramifications

The music educator seems to need to adopt a uniformity in approach to the process of understanding music. The first step may be the realization that understanding music is not a singular phrase but a complex phrase demanding clear, concise referents.

First of all, music education may need to avoid the adoption of an understanding attitude concerning some phase or type of musical activity simply to expediently overcome a lack of understanding. This especially true
in terms of avant-garde and what has become to be called youth music. Other kinds of music being discerned by ethnomusicologists also need understanding.

When the educator is involved in the activity of teaching music, a clear statement as to whether internal or external understanding is being attempted will facilitate the teaching and learning process. In addition, the realization that neither are necessary and/or sufficient conditions for the other is essential.

Appreciating music and understanding music should for the most part, be considered as two separate concepts. In the teaching endeavor, one cannot "teach" appreciation. One may only present the materials necessary to allow for the condition of appreciation to be present. If understanding is achieved, the primary function (according to our description of music education) has been fulfilled.

The public school movement, at the present time, is trying to cope with the demands of society. These demands will, in turn, be imposed upon music education. It thus would seem to be advantageous for music education to agree upon its activities in the schools. Among these activities is understanding music.

Conclusions and Implications

The very nature of the preceding philosophical discussion, concerning understanding music, makes definite
conclusions rather difficult. However, what can be said is that there is a problem, among music educators, concerning the use of these two concepts and that the vague and ambiguous use of the language does lead to confusion in the teaching activity.

In Chapters II and III, it was discovered that both the concept of understanding, per se, and the concept of music, per se, do not have distinct, consistent, and clear usage. A solution to this problem might lie in the realization by music educators that a definitional statement simply will not solve the dichotomy. If this were true, one would only have to go to the dictionary, copy down the definition, and proceed from there. Second, a realization that there is no right or wrong definition involved. Thus, no one need be put in a position of having to defend their use of a concept.

A conceptual understanding is determined by the uses of the term. This implies that adjunctive referents need to be supplied to determine the frame of reference in which a concept is to be comprehended. In other words, in any given teaching/learning situation, the point of the activity may be internal understanding, external understanding, or both. Further, and of equal importance, there is a need for the clear delineation of the sufficient and/or necessary responses by the learner, which will demonstrate that he does indeed understand. This must be easily evinced by the student as well as the teacher.
The implications of this study may also indicate that other concepts concerned with music and music teaching need investigation and clarification, i.e., concepts such as appreciation, listening, musicianship, musical style, interpretation, and so forth. The ambiguous use of these and other concepts makes teaching and learning unnecessarily complex.

Be it understood that to say "this or that must be done" is relatively simple. However, be it also understood that to accomplish the task is complex and will take dedication and desire on the part of music educators. Two things must happen, i.e., first, admit that there is a problem; and second, agree that philosophical analysis is a legitimate tool which can be used in solving the problem.
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