

Reality and Unreality in the Interpretation of Electroacoustic Music

Hubert Howe

Queens College of the City University of New York, Flushing, New York, U.S.A.

hubert.howe@qc.cuny.edu

Abstract

In order to understand electroacoustic music, inexperienced listeners try to draw upon their previous auditory experience, primarily instrumental or vocal music, or sounds from a non-musical context; but they often misunderstand the sounds as representing objects appropriate to those other experiences. This could be thought of as the “realistic” interpretation. This paper will argue that listeners must discard their preconceptions and attempt to create meaning from the nature of the sounds themselves, even if the vision conjured up is completely “unrealistic.” This would be true even if the sounds occurring in electroacoustic music are identical to sounds from those other experiences. To simplify this explanation, the process involves nothing more than learning to listen to what might have previously been thought of as unmusical sounds as music. It is also often necessary to try to hear instrumental or vocal sounds in a new and different way, in which the meaning of the sounds is determined by the musical context and not by the nature of the vibrating bodies that produced them.

1. The Problem Stated

This conference has been organized around the theme of meaning in electroacoustic music, and I would like to begin by addressing the question of meaning in music in general. What does music mean? To answer this question, many people begin by trying to identify the sounds that they are hearing. Even though it is not as central an issue when dealing with acoustic music, the issue arises there as well. People learn to identify instruments, although again there are always ambiguities, due to the similarities between the timbres of certain instruments. (Was that note a trumpet? a French horn? More importantly, does it matter?)

Any discussion of meaning in electroacoustic music must deal with the nature of the sounds used. The main difference between electroacoustic and other forms of music, after all, is that electroacoustic music can use anything, whereas other music has to rely mostly on musical instruments or voices. The listener, then, tries to make sense of his or her experience.

When we think about listening to electroacoustic music, or any music for that matter, what is “real?” There is an assumption that pervades much writing about music, to say nothing of the general public, that acoustic instrumental and vocal music is “real” whereas electroacoustic music is “unreal” or “artificial.” This problem causes many people to misunderstand, and even to reject, electroacoustic music. One of the main reasons why people develop this bias is that they do not understand the sounds that they are listening to, let alone the music itself, and the basis of their misunderstanding is that they misinterpret the sounds as representing things that they have heard in other musical or non-musical contexts. I would like to argue that, in

order to understand electroacoustic music better, people need to give up what I call a “realistic” interpretation of the sounds and concentrate instead on listening to the music in an imaginative and creative or “unrealistic” manner.

Composers have not necessarily abetted the wider understanding and reception of their music. Many pieces are based upon recorded sounds that are manipulated and processed into the final result. For example, imagine that a listener hears a sound that resembles the cry of an animal, and that sound is then transformed in ways that may give rise to images such as pain or cruelty. The listener may then imagine that the piece depicts such actions being carried out, and may well develop a revulsion to the music. My argument is that listeners should not necessarily be thinking of looking for the source of the sound in that manner in the first place, but should instead imagine it as they might in a more abstract manner, such as we would an orchestral representation of the same sounds.

In electroacoustic music a different issue arises, because many composers use recorded sounds. When we hear the sound of an animal, machine, or running water, our first impulse is to take that as “meaning” what it sounds like, but this could be a big mistake. The subsequent development of a piece will often bring out aspects of the sounds that most people would hardly notice on first hearing.

2. What is “Real?”

In electroacoustic music, we are often puzzled about whether the sounds heard are “real.” There is a distinct bias towards “real” sounds as opposed to “unreal” ones, or sounds that do not arise from recordings or from previous sounds. Sometimes this debate also sidesteps into whether a sound is “musical” or “unmusical.” This seems particularly inappropriate in electroacoustic music, where any sound can be used, and usually is. When real sounds are used, at least people may think they have heard them before, and thus understand them in some sense, but with unreal sounds, there is no previous experience. Even when we think we recognize a sound from something we have heard in the past, we need to learn to hear it in a new and different way, and the **context** of the music is what determines how it should be heard.

The way most people talk about the sounds used in electroacoustic music, there is a bias in favor of “real” sounds and against “unreal” or “synthetic” ones. We know, or at least we think we know, where the real sound came from, but the unreal one is a mystery. Particularly when music synthesizers were being developed, there were substantial efforts put into trying to recreate musical instruments, and indeed many of these were deficient if not downright uninteresting and oversimplified imitations of them. But the same reaction was often made to sounds that the composers were simply constructing for their own inherent qualities, where they weren’t trying to imitate anything. Nevertheless, the lack of being able to identify an external object with the sounds means that unreal sounds were lacking an element of depth that is present in real sounds. The question is, **why should this matter?** Why can’t we discard this quest and simply accept a sound for what it is?

3. Music vs. Language

In order to clarify how to deal with this problem, it will be necessary to consider some basic aspects of musical perception and interpretation. Music is not our first experience with sounds; that would be language. Language is a form of communication, where sounds denote elements like objects, actions and emotions. Language is an innate characteristic of the human race; all people, unless they are disabled, learn to communicate through language and develop detailed understandings of how to group structured sounds, which have considerable variations between different speakers, into complex meanings. My point here is that, because of language, we already have an innate mechanism for assigning meaning and denotations to sounds.

This is not the way that we listen to music. While music may communicate various actions and emotions, its interpretation is much more subjective and interpersonal, and it could be alleged that no two people hear exactly the same music in the same way, although they may agree with many aspects of it. Cultural biases, as well as the nature of the language that we first learn, play a part in this.

In the modern world, most of our experience in listening to music comes through recordings or broadcasting. With speech, most of it comes through direct interactions with other people, although we also hear many voices through television, radio, and recordings as well. One result of this is that we usually always have visual cues when we hear a person speaking, whereas we lack visual cues when listening to recorded music. Since we have often seen people playing music, we feel we have some idea of their actions, but there can be many misperceptions when imagining how music is being produced. One result of listening to music through recordings is that people develop a passive role and let it, so to speak, come in one ear and out the other without digesting it. Passive listening is actively encouraged by our culture, in which music is used in advertising and in the background of movies, television, and even elevators and in the workplace. I recently heard someone describe which music is best to listen to when studying. I have to confess that I am incapable of doing something else while listening to music. Unless it is really boring, such as Muzak, I can't help but listen to it. Passive listening actually discourages people from selecting music that engages them in an active way, and it encourages music that is bland and unintrusive. While passive listening may help people to develop a familiarity with a particular piece of music, it cannot be said that this amounts to understanding.

One of the things that people do when they listen to instrumental music is to try to identify the instruments that play different passages in the music. This is not necessarily an irrelevant activity, because it is often the case that primary and secondary melodies are played by certain instruments, and identifying them helps people to discern the melodies from the surrounding sounds. But the definitions of musical instruments are not all that precise; there is no such thing as "the" violin. Moreover, musical instruments have notable transient byproducts of their sound production, and they are capable of producing their expressive qualities in only a limited range. Stringed instruments cannot produce their sounds without making a certain amount of bowing noises, and wind tones are often accompanied by escaping air. A piano cannot produce a crescendo, although a succession of notes can have an increasing dynamic, and it cannot produce vibrato. Only stringed instruments can produce a pizzicato. If we think of these expressive qualities as useful properties to assign to sounds in music, why would it not be useful, for example, to be able to produce a pizzicato with a clarinet timbre? This is

possible in electroacoustic music but not in instrumental music, although a composer could ask a player to imitate it in such a way that the listener might associate the two sounds.

In electroacoustic music, the range of source materials is much greater than the instruments and voices of acoustic music. Composers may draw upon mechanical and animal noises, natural sounds, as well as the entire gamut of musical instruments, and they can also create sounds out of pure fantasy. A concept such as granulation, for example, could never be explored fully without the techniques that have been developed for electroacoustic music. When the sounds that occur in a piece are unmistakably derived from familiar objects, such as musical instruments, it is difficult to disassociate those aspects from the music. But I would argue that it is usually necessary to do so. One property of most electroacoustic music is that composers do not try to duplicate things that could be more easily done by acoustic instruments in live performance, but instead aim for new and more imaginative and challenging ways of presenting the sounds. A listener who can put aside the familiar recognition of the source objects will be able to form a more relevant interpretation of the music.

4. Originality in Sounds and in Music

There is no sound that could be imagined or produced that does not resemble other sounds in some way. When we learn to identify a musical instrument, we learn to associate all the characteristics that we hear with that particular instrument. What an “original” sound really does it to take something that we may have heard before and place it into a new context, where we cannot rely on our previous experience to elucidate these associations. This means that the most important characteristic a listener needs to bring to the experience of unfamiliar music is an open mind and a willingness to discard old assumptions about music. It is when music begins to remind us of something we have heard before, and therefore belongs in a particular basket, that we begin to disregard the original and unique properties of the object.

While I am arguing against the notion that instrumental sounds are “real” and electroacoustic sounds are “unreal,” it is important to recognize that there are still many valid reasons for studying instrumental sounds. Since these have been used for many centuries in the history of art music, it is important to know and measure their qualities. Another reason for studying them is to know how to reproduce them, and to manipulate their qualities in doing so. Unfortunately, synthesizer manufacturers have taken the goal of reproducing musical instruments as their sole rationale for designing their instruments. Even though most synthesizers can produce a much wider range of sounds than musical instruments can, almost no one who uses them ever explores these aspects. While there are many other valid reasons for studying instruments besides these, we must nevertheless not be misled into thinking that these sounds represent some kind of standard of excellence, or that sounds which are different are less valid or “real.”

One of the proper roles for electroacoustic music is to extend the creative aspect of composing music to the design of sounds as well as the musical structures that composers have created throughout history. We will not be able to appreciate these efforts until we are able to shed outdated notions of what is “real” and “unreal” in music.

5. Meaning and Interpretation

There exist today many impressive tools that can analyze sounds and give a pretty complete description of the acoustic events that take place within a given sound. I use some of these tools myself, and I continue to learn a great deal from them. Unfortunately, however, such tools can give the analyst a false sense of security about the results obtainable. There are at least two reasons for this. The first is that identical sounds can be produced in many different ways, and the manner of production gives clues as to what other sounds in a musical context should be associated with them.

The second reason is even more important: the same events do not necessarily have the same meaning when they occur in different musical contexts. This is a fact that we should know from all of our experience with music. For example, the piano has only 88 keys, and thus 88 discrete sounds that can be produced with not all that many different modes of attack, dynamics, and other characteristics. (For the purpose of this discussion, I am ignoring lots of subtleties that can arise from the use of pedaling and other effects.) Nevertheless, the piano has been used throughout history to produce music in a wide variety of different styles and genres. Thus, the constituent sounds themselves do not tell us that much about the meaning of the music.

Continuing this line of reasoning, even the identical music, when it occurs at different points in the same composition, does not often convey the same meaning. Consider music which contains a recapitulation of some sort. The fact that the second occurrence takes place in a different context, namely after other music has intervened, can convey a different meaning. I am sure you can think of pieces where the recapitulation occurs as part of an ongoing passage, so that the return of the opening music sounds like a continuation of the middle passage. I would push this further, to assert that a recapitulation even in something like a Mozart Sonata could have a different meaning from the original statement, more like a conclusion than an opening statement.

6. Analysis in Perspective

In all music, analysis is where we discuss ideas and determine at least some aspects of the meaning of the work. Performing any analysis requires taking some sort of perspective from which we examine the music and determine how it corresponds to those presumptions. Often the most difficult aspect of analyzing electroacoustic music is determining the relevant perspective to apply to the music. Once we decide that, we can produce all kinds of observations, data, and evaluations of it. It is often useful to try more than one perspective to the same piece. For example, I have heard several interesting ideas at this conference about analyzing pieces as a narrative, and it would be interesting to apply this concept to pieces where narrative might not be thought relevant. (I should say here that I am mainly interested in more difficult music that does not fit easily into any single category. There are obviously many works that do not require such multiple approaches.)

Finally, I would add that I believe that **any** idea that can be shown through analysis to exist in a piece of music is valid. For example, Peter Rothbart's discussion of ethnic identities in electroacoustic music was to me a pretty convincing demonstration of the validity of his points, at least for the examples he played. This means, of course, nothing more than that a single work of art can have multiple, even contradictory, meanings.