



The  
Temporal  
Continuum  
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Time passes. The present slips into the past. The future rushes toward us, but the moment it becomes "now" it's transformed into another memory. How do we hold on to our experiences? How do we find meaning in music, the temporal art form?

Of all the art forms, music seems to be the least tangible. It, being the sounds we hear, not the symbols on a page, can not be seen or touched. It can not exist in any given instant, but extends itself through time and demands our continually modified perceptions. The moment we perceive it, it slips into the past, only to be replaced by yet another fleeting perceptual glimpse. Even in its time-bound flight it has the ability to touch the listener and make lasting, life-long impressions. How can this happen? How can we find meaning in this elusive art?

Decades have passed since the initial investigations into the psychology of music and musical perceptions. Philosophical writings on the aspects of time and art have lined our shelves for years. It is my goal, in this paper, to bring several of these concepts together in a concise, cohesive presentation. The benefits of such could touch a broad spectrum of musicians and music lovers. For composers, such as myself, these concepts could very easily affect the way their music is conceived and presented, and on the other side of musical creation, the listener and music lover could gain helpful insight which might deepen their appreciation and facilitate their grasp of meaning in music.

For this study, the listening experience will be our specific area of focus. Since music is an art to be heard, I feel this approach will be the most helpful. Even the composer, in his/her creative mindset, should never lose sight of the fact that music is for listeners.

As we delve into our investigation of the listening experience, let us first consider the temporal continuum. Although we perceive time as flowing in a linear fashion, let us step outside of the chronological stream and look at time as if it were an object to behold in its entirety, hence the use of the term continuum. The three aspects of the temporal continuum, as we will be considering them, are, simply put, past, present, and future. That seems easy enough to grasp, but what we will see in our study is that all three exist simultaneously in our listening experience. Edward Husserl refers to this phenomenon as the "temporally extended consciousness."<sup>1</sup>

Consider a melody -- one pitch following another. If we as listeners were unable to somehow retain perceptions from previous moments, we could not apprehend a complete melody. As it is, we are able to do so. Husserl explains it this way:

That several successive tones yield a melody is possible only because the succession of psychic events is united "at once" into a total formation. They are in consciousness successively, but they fall within one and the same total act. We obviously do not have the tones all at once, and we do not hear the melody by virtue of the circumstance that the earlier tones

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<sup>1</sup>Edward Husserl, On the Phenomenology of the Consciousness of Internal Time (1893-1917), John Barnett Brough, translator, Kluwer Academic Publishers, London, 1991, page LIII.

continue to endure while the last tone is heard. The tones rather form a successive unity with a common effect.<sup>2</sup>

No one has ever perceived a symphony in its entirety, for as soon as one moment's auditory input is perceived it vanishes into the past and is stored as a recent memory. Only when the last note of the symphony fades into oblivion can we say we have listened to the whole work, but even then it no longer exists, except in our minds. We can only find meaning in our musical listening experience by comparing the perceptions of recent memories with those of not so recent memories.<sup>3</sup>

These fleeting now-perceptions are not really apprehended as separate entities. Like the flow of a motion picture, each frame being flashed individually on the screen in rapid succession, music is perceived as a whole object, not separate events. A listener does not hear a series of discrete events. He hears whole phrases, recognizes entire tunes, becomes aware of particular patterns, and in general spends his time in perceptual tasks which involve the sorting out and grouping together of the events.<sup>4</sup>

This "sorting out and grouping together" plays a vital role in the third realm of our temporal continuum, the future. The perceptions acquired, sorted and grouped, and stored in memory by a listener serve to endow that listener with certain expectations. The listener is able to make predictions, in relation to the flow of musical input, during the course of a listening experience.

As an analogy, let us consider the words "Baa, baa, black sheep." It is almost impossible for someone in our culture to hear those words and not

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<sup>2</sup>Husserl, page 22.

<sup>3</sup>John Booth Davies, The Psychology of Music, Hutchinson & Co Ltd, London, 1978, pages 47-48.

<sup>4</sup>Davies, page 62.

formulate a prediction. As a result, what follows can not exist in a vacuum, but will be inescapably related to the initial phrase. If the continuation is "have you any wool?", the reader's predictions will be realized. Dependent on the individual reader, the second phrase may be a disappointment because it would be considered obvious and boring.<sup>5</sup> A different reader may find comfort or security in the realization of his/her prediction. This concept of reader/listener response directly relates to finding meaning in music, which we will discuss in greater detail later in this paper.

This concept, of how music is perceived in the temporal continuum, is also addressed by David Lewin.<sup>6</sup> He discusses, what he calls, a "recursive loop," incorporating terminology from Husserl\*. In this loop, recent past experiences (retentions\* or retrospective contexts) are brought into present perceptions and expectancies of upcoming events (protensions\* or prospective contexts) are also brought into the present perceptions.<sup>7</sup> Given our confinement to linear time, it logically follows that the only way to perceive the whole of a work is to bring both the past and probable future events into our present perceptions. This is the kind of state I believe Husserl was referring to with his "temporally extended consciousness."

As mentioned above, one of the perceptual tasks our mind undertakes as we listen to music is to sort and group the auditory information being received. Since a principal characteristic of music is the significant relation between sounds, the listener will find meaning in the work if he/she recognizes relationships and identifies significant groupings. At the highest level these groupings will be large and complex, corresponding to the formal structure of the work. The lowest level

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<sup>5</sup>Davies, page 74.

<sup>6</sup>David Lewin, "Music Theory, Phenomenology, and Modes of Perception," *Music Perception* 3, No. 4, 1986, pages 327-392.

<sup>7</sup>Lewin, page 330.

will deal with relatively small, simple groupings like features of sound patterns which characterize just a few notes.<sup>8</sup>

At the most basic level, people will tend to perceive groupings according to the Gestalt principles of perception. It seems these principles have been proven to be relatively innate and universal -- from animals and children through human adults. These principles deal with proximity, similarity, and continuation. There is also the Law of Pragnantz at work in the listening experience. It simply holds that the mind tends to reduce perceptions to simpler forms in the memory. Leonard Meyer deals with these to a greater extent, than is done here, in his book, Emotion and Meaning in Music.<sup>9</sup> He also has quite a bit to say about meaning in music, which brings us to that point in our discussion.

What is meaning in music? According to Meyer, it's the product of the relationship between stimulus and the thing it indicates. If a stimulus leads to a consequence, then the stimulus has meaning. Anything requires meaning if it is connected with, or indicates, or refers to, something beyond itself.<sup>10</sup>

Meaning arises out of three things: 1) the stimulus; 2) what the stimulus points to; and 3) the conscious observer.<sup>11</sup> I would go one step further and say that meaning can not be perceived by an observer unless he/she has previous musical experiences to draw from. Natural expectations are governed by learned expectation.

Let us compare music and language to draw some parallels about meaning. The natural medium for both language and music is auditory. That is, both

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<sup>8</sup>John A. Sloboda, The Musical Mind: The Cognitive Psychology of Music, Clarendon Press, Oxford, 1987, page 154.

<sup>9</sup>Leonard Meyer, Emotion and Meaning in Music, University of Chicago Press, Chicago, 1956.

<sup>10</sup>Meyer

<sup>11</sup>Meyer

language and music are primarily received as sequences of sounds. Thus, many of the neural mechanisms for analyzing input and producing output must be shared.<sup>12</sup>

It is common to consider a human language as comprising three components: phonology -- a way of characterizing the basic sound units; syntax - - the rules governing the way in which sound units are combined; and semantics - - the way in which meaning is assigned to sound sequences.<sup>13</sup> In musical phonology, we are dealing with frequency (pitch), duration, and timbre. Under the heading of syntax, we could refer to numerous rule-based systems which attempt to characterize the sequential regularities of music, but since the intention in music is to communicate, composers often choose to stray beyond the boundaries of a given syntax to achieve their purpose. Syntax becomes, in itself, an object of aesthetic awareness and the pressures for novelty invite diversity and change.<sup>14</sup> So, how then can we find meaning in music if the syntax continues to change?

Although musical syntax changes, relatively long periods in music history have existed where the syntax, or style, remained stable. Finding meaning in music often means simply experiencing and becoming familiar with a particular style or syntax. Through the listening experience, we can become familiar with the diverse types of musical syntax. As our perceptions of a particular style are sorted, grouped and stored, expectations will be developed and meaning in the music will result from the manner in which our predictions are realized, denied and/or altered.

We must assume that not everyone perceives music in the same way. We must also assume that each listener's knowledge and experience base is different. From these two assumptions, we must conclude that meaning in music should be

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<sup>12</sup>Sloboda, page 18.

<sup>13</sup>Sloboda, page 22.

<sup>14</sup>Sloboda, page 38.

considered from a phenomenological perspective. Individuals have differing organizational capabilities, varying memory and retention skills, as well as differing experience backgrounds. This would lead us to believe that each individual would perceive a musical work differently and thus apprehend a different meaning.

Is this acceptable? Should we accept the fact that a work of music has as many different meanings as listeners? I do not believe that to be the case. What I do think is that each listener brings to a new listening experience his/her own level of comprehension. That would translate to a theory in which there are different levels of meaning, not necessarily completely different meanings. The more experienced listener would probably apprehend deeper, more complex insights from the music than would a less experienced listener. The more experienced listener would have a larger store of memories from which to relate his new perceptions, thus his/her newly acquired perceptions would be much more easily and quickly assimilated and deeper meanings discovered.

This does not necessarily rule out different meanings or interpretations. There may very well be differing interpretations of a single work of music, but a discussion along this line would take us too far away from our current path as well as into a more complex philosophical realm.

My purpose in proposing the idea of multiple meanings was not to confuse the issue but to affirm each listener's individual level of apprehension. If a "naive" listener finds appropriate meaning in a piece of music, no matter how elementary his/her perceptions might be, it should be considered acceptable. I use the term "appropriate" to narrow the possibilities down to the musical features relating to the piece itself, trying to rule out subjective, arbitrary impressions.

As this paper slips into the realm of perceptions-past, let me conclude by saying, the musical listening experience is a fascinating concept. To think that the

human mind can take fleeting moments of auditory information and create whole objects of musical meaning just astounds me. It is a topic well worth the continuing study.

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