

## Communication in Twentieth Century Music

Expression and meaning in tonal music is based on fulfillment or denial of preconceived expectations through manipulations of a system that Western listeners are already conditioned to understand. The art music tradition was based exclusively on such a practice for hundreds of years, yet that is no longer the case. Over the course of the nineteenth century, significant experimentation within the tonal system occurred. Composers began prizing highly personalized communication, an ideal that often required expanded pitch materials, increased dissonance, obscured or non-functional harmonic progressions, and many other characteristics that placed a seemingly overwhelming burden on the tonal system.

In the early twentieth century, a pivotal composer named Arnold Schoenberg came out of the proverbial closet: under the belief that composers had already abandoned tonal practice in all but name, Schoenberg began writing explicitly atonal music. Over many years, he devised an alternate method for composing called twelve-tone serialism, where each of the twelve chromatic pitches would be placed into a certain order (the row) that would form the basis for a composition. Despite this deceptively large break with previous tradition, Schoenberg's music still sounds closely related to previous styles, particularly that of the Romantic Era. Some of his successors (and critics) took his move away from the pitch-based methods of common practice as justification for abandoning non-pitch aspects as well, thus beginning a search for even more drastically altered systems. This eventually caused the plethora of styles present today, though notably no underlying practice like that of the tonal system has developed. That is both the great freedom and the terrible bane of composers today: there are no 'rules'. There is no one system to learn as a foundation for individual expression and there is no common language that listeners can draw upon to understand contemporary art music.

Or is there? Though many lay listeners are not familiar with modern classical music anymore, they most likely have been exposed pop music of some sort. Rock, jazz, and other forms of pop music are based on the traditions of the tonal system, though often distilled into their most simple (worst case) or essential (best case) forms. The major/minor tonality, identifiable key centers, tertian chords, distinguishable melody, and dance-inspiring beats that are keystones of pop music perpetuate some of the preconceived expectations, preferences, and tendencies of the classical tonal system. Listeners then subconsciously absorb those elements to create a shared musical language based on tonal practice.

Does that mean that composers today should stop what they are doing and write tonal music? No, it does not. Still, the legacy found in pop music does have two important implications: first, listeners have this wealth of internalized musical knowledge and expectations that can be accessed or manipulated in order to facilitate musical communication; second, the tonal system has obviously been carried on in popular tradition for a reason. By examining the tonal system to see what makes the music so accessible and enjoyable for listeners, composers can have more success in developing meaningful alternatives.

So what does it mean for a composition to be ‘tonal’? In the most general sense, the term refers to the presence of identifiable pitch centers within a piece, yet also applies more specifically to music that is based on the major or minor scale. With that pitch collection as the foundation, numerous distinct characteristics traditionally follow: harmony dominated by root motions of a fifth, use of tertian chords (mostly triads or seventh chords), and most importantly, separation of such sonorities and even individual notes into categories of consonant and dissonant. The harmonic practices that arise are based on creating and resolving tensions by utilizing various levels of consonance and dissonance, a philosophy that translates into other

elements as well. The tonal system thus manifests itself in the three cardinal aspects of music – melody, harmony, and rhythm – while also having implications for how those elements are presented (ie. texture, orchestration, and form).

Tonal melody is most obviously characterized by its basis in the major/minor system. In other words, pitch choice is limited by what key or chords are occurring, phrases tend to begin and/or end on specific scale degrees (the tonic or the dominant most commonly), recognizable shapes and patterns are used (ie. arpeggiations of triads), and certain dissonant melodic intervals must resolve in specific ways or are avoided entirely. However, the underlying characteristics of tonal melody are more important. Conjunct or stepwise motion often dominates, which plays the very important role of giving a line cohesion. When a melody is created mostly by leaps (particularly if those leaps are large), the line will lose its coherence and seem like an unconnected series of notes. Including a good balance of conjunct and disjunct (leap-wise) motion will unify the notes into a coherent melodic phrase. Clear motion to and from identifiable also helps to make tonal melodies more understandable, as does repetition of motives within a melody and of melodies themselves. Such repetition can be either exact or varied, but the goal of any variation generally is to create material that a listener can still perceive as being related to the original. Emphasis on clarity and comprehensibility is a necessary corollary to dominating principle of tension and release, as it ensures that audiences can receive whatever the composer is trying to convey in the music.

Tonal harmony likewise has characteristics that are inextricably linked to the major/minor system as well as more essential aspects. As mentioned above, the term tonal implies that there are pitch centers. The primary pitch center will be the tonic of the main scale, though there may be other pitch areas that occur whenever the music modulates to a new key.

Relationships between notes will be derived from the scale, as will those of chords built on the scalar tones. This brings up another important point: tonal harmony is root-based. The note on which the chord is built is not always in the bass, yet a listener can easily learn to recognize the root regardless of placement. This is possible due to the high level of familiarity listeners will have with chords based on the interval of a third (tertian harmony), which make up the overwhelming majority of sonorities found in tonal music.

Additionally, there is a general tendency for chords to be as voiced as clearly as possible while often containing a limited number of notes. Thus, triads (3 note chords) and seventh chords (4 note chords) dominate the sonic landscape. Since the types of chords used in the tonal system is relatively limited and the harmonic practice is based on the distinction of consonance from dissonance, it is possible for listeners to perceive notes within any given simultaneity as belonging to the chord that is occurring (chord tones) or as being foreign to that chord (non-chord tones). Such pitches are dissonant and create a tension that must be dissipated by resolving to a chord tone. Thus, the somewhat restricted choice of chord types within the tonal system is not a weakness, but rather a necessary framework against which sophisticated patterns of tension and release can occur.

In that sense, the harmonic palette of traditional practice plays an analogous role to that of meter. The vast majority of tonal music has some sort of recognizable pulse that is organized into regularly recurring groups (meter). Often a listener can internalize that pulse and meter quite quickly, allowing the composer to create sophisticated rhythms within or against the established foundation. Depending on the relation of the surface patterns to underlying pulse and meter, different levels of consonance and dissonance can exist. Such interactions can be found on many levels ranging from a single beat to the entire piece. Creation, manipulation, and

resolution of tension with the related emphasis on clarity that allows such effects to be perceptible thus remain the guiding principles in this non-pitch aspect of tonal music.

Texture, orchestration, and form are secondary aspects of tonal music, that fill important roles in ensuring clarity of expression as well as creating meaning. In tonal music, textures were mainly created so that each part present at any given time could be clearly identifiable. Homophonic texture (melody and accompaniment) served that purpose quite readily, and even complex contrapuntal textures generally included a limited number of distinct parts to facilitate perception of the different voices and the harmony they created. In exceptional instances, texture became a source of tension, which would obey the dictum to eventually resolve. Traditionally, orchestration in tonal music was designed to clarify the presentation of simultaneous ideas or to draw parallels between moments separated in time. During the Romantic Era, instrumental color began to be treated as an independent end as well as a tool to create comprehensibility. Once that change occurred, orchestration gained the ability to create tension that could be used for expressive purposes.

Form underwent a similar process: originally musical structures existed to enhance the participation of memory when a listener had to perceive longer stretches of music. Exact repetition of phrases, subsections, and complete sections was common, and the number of different formal units was often limited as well. Forms began to grow more complex and detailed, giving rise to standardized archetypes like sonata form. Those traditional forms functioned like the harmonic palette and meter of tonal music: they acted as a recognizable structure (thus aiding in comprehensibility) that composers could fulfill or deny to elicit responses from a listener, thus creating or resolving tension. In that sense, a type of formal consonance and dissonance could be said to exist. Such effects can also occur in pieces not

based on a form which the listener is familiar with provided that architecture is based on some sort of recognizable pattern.

It is also important to note that, in tonal music, formal structures on a variety of micro and macro levels are often based on harmonic processes. At a low level, two phrases are often joined together in what is called period structure. Here, the first phrase will cadence in such a way that a second phrase is required to resolve the harmonic tension created in the first. At a higher level, different sections will often modulate to specific key areas such as the dominant or the relative major. Furthermore, some forms are essentially a long-term working out of a specific harmonic conflict. In sonata form for example, the opening section (or exposition) will include two main themes, one in the tonic key and one in the dominant key. The middle section of the form is based on developing those ideas until finally the two themes return, both in the tonic key, during the recapitulation. Thus, the relationships of the major/minor pitch system are inherent to the effect of this and many other tonal forms. If standard tonal forms are used in a non-tonal context, some alterations will need to be made to account for the changed harmonic foundation. Conversely, personalized forms could be developed that similarly rely on harmonic structures and relationships (though obviously of a different sort) to enforce the formal processes that occur. Regardless, the strong connection between harmony and form is an important element of tonal music that can and should be retained in any new systems that arise.

The sonata form example above also reveals another vital element within the tonal tradition: teleology. Tonal music is distinctly goal-oriented in almost all of its aspects: melodies have a clear note that the line is moving toward or away from, chord progressions are reaching for the tonic chord, rhythms ultimately want to arrive on the downbeat of the meter, sections within a form lead up to a climax (the recapitulation in sonata form, for example). Tonal music

feels like it is going somewhere. What that destination is, how the composer brings the listener there, and what follows form the essential experience of a tonal piece of music. Tonal music is, in other words, narrative. It tells a story, though (in the case of music without accompanying text) an abstract and highly subjective one. Still, that underlying sense of journey is what makes it so easy for listeners to relate to tonal music.

The shared language that allows composers to convey such feelings in tonal music is a learned language. It is ingrained in listeners from a young age and is entirely dependent on cultural exposure. It is not a universal constant. Someone who has never heard any tonal music will have a very different experience listening to Beethoven's Ninth Symphony than would a teenager who grew up hearing rock or a trained classical musician. Tonal practice is not the only – or even the oldest – system in use today. Many vastly different traditions exist across the globe. Such systems can be learned equally as well, providing they are based on principles conducive to human perception and that listeners are given sufficient exposure to the music.

What principles are important for a composer to follow when creating a system that listeners can understand yet that is not based on the major/minor tonal system? As stated previously, traditional tonal practice could provide a handy model and many of its underlying principles can easily transfer to other systems of music. A sense of teleology fueled by the manipulation of tension and release should remain an essential characteristic. A main problem with much twentieth century art music is that everything is tension. There is little or no resolution, and the listener cannot sense any directed motion. This prevents communication and removes the possibility for a meaningful experience. Resolution of tension and the accompanying sense of moving toward a goal must be preserved for a work to be meaningful.

To ensure the most effective presentation of musical ideas and expression, an emphasis on overall clarity should be retained as well. Beyond that, many other underlying principles of tonal practice can and should be transferred to any new system of composition. A number of the 'rules' of good voice-leading apply equally as well to post-tonal styles as to the tonal tradition. Textures and orchestration that clearly highlight important lines, signify formal divisions, and emphasize large-scale connections should dominate, while tension created by texture or orchestration should be used for special effects. Otherwise, characteristics directly stemming from the major or minor scales may need to be modified or abandoned in their new context.

In terms of pitch choice, any collection is a valid palette for musical expression so long as it is justified by the interaction of consonance and dissonance however a composer may define those categories. Pitches do not have inherent meanings. However, they can take on referential meanings depending on context. This is pre-established in systems that have been repeated in a variety of works. For example, in the major/minor tonal system, scale degree 7 has a tendency to resolve up to 1. In the context of C major, the pitch B will sound like it needs to continue up to C. If the note does so, the listener will get a sense of satisfaction, but if it does not, the listener can experience a host of other responses depending on what notes follow.

This effect is magnified when that single tendency tone is part of a chord, say a dominant seventh chord built on G. The expectation of B to go to C is enhanced by the addition of the other chord tones, particularly that of the F (with which it creates the dissonant tritone interval) and the G, which has its own tendency to resolve to C in this context. Yet, if the B is part of a different chord, maybe an E dominant seventh, it will take on a new meaning. That chord pulls the music toward A Major because of the tendency tones it contains and the B thus no longer demands resolution to C. The function of the B is entirely contextual and can change many

times within a single work. Still, those meanings are very perceptible for listeners due to their previous experiences with the major/minor tonal system. This makes it quite easy for composers to manipulate the listener's responses in a sophisticated manner. However, difficulties arise when working with pitch collections with which a listener may be less familiar.

If single notes are harder to imbue with clear relational meanings outside the major/minor system, does that mean it is impossible to create such meanings for intervals or chords? Not at all. In fact, it is not even impossible to create relative meanings for individual pitches.

Repetition of such pitches, particularly at strategic structural places can be very important toward establishing relationships between notes or even defining tonal centers. More subtle, however, is the use of combinations of pitches to create meaning. As described in the C Major example above, the E dominant seventh chord's need to resolve to an A chord overpowers that of the note B to resolve to a C. This is influenced by two factors: firstly, there are more tendencies in the chord simply because there are more notes occurring and secondly, the relative consonance or dissonance created by the combinations of notes creates a sense of where the chord should move next. Though that feeling is again based on the context of the tonal system (which includes certain determinations about what sonorities are considered consonant and dissonant, as well as the guiding principle that dissonance should resolve to consonance), the underlying philosophy has important implications for music not using the major/minor system.

A single pitch has no absolute meaning. When two pitches are sounded together harmonically, an important characteristic arises that can create relative meaning: the level of dissonance or consonance. That added aspect allows the subjective meaning of an interval to be stronger than that of a single pitch. The same principle applies when chords are created by a third or fourth note is added. Additional contextual meaning arises when a note follows a note,

or interval, or chord. This process can be found in the major/minor system, underlying the learned associations of notes in relation to the scale. Composers writing music outside that system need to develop relational meanings in order to create expression in their music, and to effectively do that, they will first need to decide on their own what personal meanings different intervals or chords have based on their level of consonance and dissonance.

In a sense, composers either need to accept the designations of the major/minor system regarding what intervals and chords are consonant or dissonant as well how to use them or they need to create their own 'rules'. Whatever system a composer follows is going to be highly personal and may even be subconscious or at least internalized to a point where the composer is no longer aware of the distinctions he/she are making. Yet, as long as there is some sort of categorization or continuum in the mind of the composer, he/she can create patterns of tension and release regardless of what collection of notes they are working with.

Just as no one set of pitch materials is pre-requisite for a comprehensible compositional practice, use of tertian chords, fifths based root motion, or even root-based harmony is not necessary. Chords based on thirds are just one of many types that can be utilized by composers. Chords by fourths or fifths, chords by seconds, or chords with less standardized construction can also be used to great effect. One type of chord could be used exclusively or a variety of different types of chords could intermingle freely so long as some aspect of the music is gives direction to the progressions.

With such an expanded chordal vocabulary, it is questionable whether root based progressions are necessary or even perceptible for most listeners. Clear root motions can add varying levels of teleology to a series of chords depending on context, but other aspects of the music (control of consonance and dissonance for example) will probably be more effective and

should be used in conjunction. Techniques of creating harmonic progressions not based on chord roots could also be fruitful. Harmonic progressions where the bass note is most important are a reasonable option, as listeners are likely to pick the lowest pitch as being most important in an unfamiliar chord. Mirror harmony, where pitches, intervals or chords reflect around a central pitch (static or not) could be another alternative. Others surely exist and will have the potential to be meaningful provided the composer moves from chord to chord in an intuitive and natural manner.

Still, a central problem for new music is that it generally is not based on a system that audiences will already be initiated into – harmonically at least. The chords are unfamiliar and without tonal centers it is often difficult to hear the successions of chords as progressions. Minimizing the number of notes included in chords can help clarify the harmony. Repeating progressions can create a sense of identity, allowing the chords to become recognizable enough to serve as a backdrop for non-chord tones to be employed. Including tonal centers, though they will need to be established by non-traditional means, is another important (though not always necessary) step as it creates clear goals to direct the harmonic motion. Manipulation of consonance and dissonance as described above is another vital method, yet such pitch based patterns tension and release should again be mirrored in other aspects of music, particularly that of rhythm. Recognizable pulse, as organized into meter, is a main characteristic of much tonal music, particularly the forms of pop music with which lay listeners will be most familiar. When non-tonal composers avoid a sense of meter and pulse, they are taking away what is possibly the most recognizable element in their music.

Even the most tone-deaf Westerner can feel pulse. They might not be able to dance to the latest Billboard hit but they can appreciate a good beat, giving proof to the idea that a catchy

groove can overshadow a multitude of sins. In a large number of contemporary styles, discernible repetition and pattern are avoided like the plague. Pulse and meter are denied, and all of the very sophisticated effects that can be created through skillful treatment of those elements are no longer possible. More significantly, however, the basic attention grabbing feature that gives much pop music its instant likeability – the memorable beat – is gone. The musical element that is most likely to draw in new listeners is no longer a factor.

Similarly, the aspect of a work that is next most likely to capture a listener's attention – melody – is also suffering in much twentieth century music. Though use of pitch centers helps to give a line comprehensibility and meaning, other factors can accomplish that as well. It is possible for a melody to have a clearly defined shape regardless of which pitches are or are not being emphasized. Maintaining a good balance of conjunct and disjunct motion will help create cohesion, and use of repeated motives can add another layer of unity and memorableness. Melodies do not have to be simplistic, but some handhold such as a tonal center or recognizable pattern can allow the listener to get into the music.

As mentioned before, repetition (an important device for creating effective communication) plays little role in many styles of contemporary art music. Variation or development of ideas can be found, though the profound influence of serial practice still tinges that. Serial processes emphasize types of permutation that are not very perceptible (such as retrograde and retrograde inversion) rather than the shape or rhythm preserving changes found in common practice music. Allowing the transformations of a motive or theme to be more obvious and/or including more explicit repetition within a melody or of an entire melody can help.

Repetition, in carefully chosen doses, can be tremendously effective. Composers should not be afraid to set up rhythmic, melodic, harmonic, or even formal patterns and fulfill or deny

them. Form should act as the backbone of a cohesive and understandable experience, and repetition (either exact or varied) can play an important role in that process. Form is what allows listeners to understand large-scale changes and connections across a piece. In other words, form lets listeners assimilate all of the musical information coming at them and thus perceive the overall expression of a piece. That abstract narrative within a composition is what allows music to communicate when there is no text.

Ultimately, the success of the tonal system comes down to its suitability for creating goal-oriented motion that listeners can clearly perceive. Alternate musical systems can only succeed within Western art music if they can achieve similar results using different means. Realistically, those new methods will mostly stem from a changed harmonic vocabulary: pitch choices not based on the major/minor collections, use of a wider selection of chord types, varied systems for organizing progressions or creating relative meanings for pitch materials, and personalized definitions of consonance and dissonance. Tone centers will most likely remain a vital defining force, as will rhythmic processes based on pulse and meter. Repetition, patterning, and other formal devices that aid memory must also play a role, as should any compositional techniques or methods of presentation that enhance clarity of expression.

Those essential guidelines exist to serve the communication of an abstract narrative expression. If any elements are weak or missing, then those remaining must be more present to preserve a sense of teleology. Thus, a piece without any clear sense of pulse will need to include much more convincing melodic and/or harmonic motion than a work with a compelling rhythmic aspect. Similarly, music without any perceptible direction to the harmony will need a strong melody or attention-grabbing rhythmic foundation in order to create a meaningful effect. Thus, the musical elements work together in a very fluid manner to create the expression of a work. If

a composer keeps that process foremost in his/her mind and continually asks whether the notes on the page are functioning in such a way to further communion with the listener, then whatever system (conscious or not) that he/she arrives at will follow the essential principles that make the tonal system so successful.