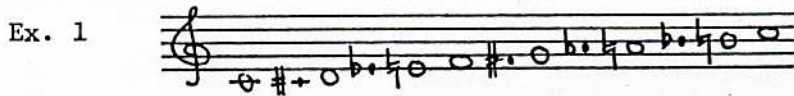


Recapitulation

The Tonal System as an Hierarchy

For at least three centuries, roughly from 1600 to 1900, ~~the~~ tonality was the common and sole language of Western music. The tonal system is a hierarchy, based on strict relations of order between its elements, that operates on three levels.

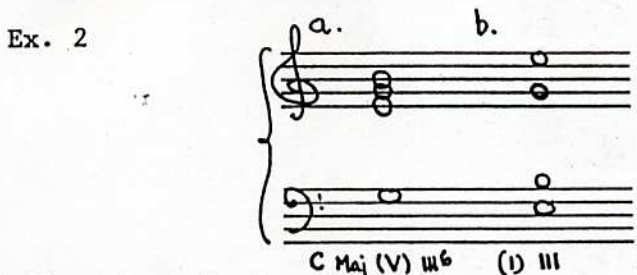
First, a set of seven pitches (the diatonic major or minor scale) is selected out of the total number of twelve pitches (the chromatic scale) possible in an octave.



Secondly, the sounds of the diatonic scale are divided into main degrees (I, V and IV) and secondary ones (II, III, VI and VII). Along with the triads built on each degree of the scale - using only intervals of thirds - they form a system of functions in the tonality:

	Tonic		Dominant		Subdominant
Main functions:	I		V		IV
Secondary functions:	VI	III	VII		II

The main functions define the tonality (the sounds included in the I, IV and V triads exhaust the diatonic scale) and any sequence of chords in tonal music can be eventually reduced to a progression involving only these three functions. The secondary functions are substitutes for I, IV and V, as shown above. The affinity between main functions and their surrogates is due to the number and to the relative importance of the elements (sounds) they share. The tonal hierarchy is also reflected in the doublings that become necessary in four part writing. Note the change of function of a III chord when a different sound is doubled: a) g (the dominant) doubled implies a Dominant function; b) e (element of the tonic triad) doubled implies a Tonic function.



Thirdly, the relations of order governing this system are further reinforced by the requirement that the Dominant, the second important function in the tonality, can not be followed by the Subdominant, a less significant one. Thus, the possible relations are:

- | | |
|--------|--------|
| I - IV | IV - I |
| I - V | IV - V |
| | V - I |

Of course, the same rule applies to progressions involving secondary functions since they act as substitutes for the main ones. This restriction, like most of the other postulates of the system, is justified by a more general concept born out of the philo-

sophy and the view of the world prevalent at the time. In the tonal system, a dialectic opposition of stability and disruption is expressed through basic progressions that start on the Tonic, a state of equilibrium, steadiness and psychological relaxation, reach either the Dominant or the Subdominant, recognized as deviations creating tensions which are resolved to a final state of reconciliation, back on the Tonic. A more powerful sequence involves the Subdominant followed by the Dominant, while the reverse order is perceived as a clumsy move to a lesser level of tension, disappointing in its failure to either relieve or to take the conflict to a new high. In tonal music, sequential logic, a precise sense of direction and a strict control of the events are conditions sine qua non. In the Enlightenment period, artists order their thoughts according to a set of unchallenged values which are based on rational knowledge.

Dominants

Secondary Functions and Chromaticisms in the Common Language of the 19th Century

The tonal system is both enriched and weakened by the introduction of chromaticisms, of altered sounds and chords. Probably the most unobtrusive way of including such chords in the gravity field of a given tonality, is through the use of Secondary Dominants or secondary functions, in general. They are meant to emphasize a tonal function by which they are strongly attracted and to which they have to resolve immediately:

Ex. 3

Ex. 3 shows a musical progression in C Major. The notation consists of two staves. The first staff contains four chords: C Major (C-E-G), V⁷/V (F#-A-C), V (F-A-C), and I (C-E-G). The second staff contains the same four chords, with the V⁷/V chord marked with a sharp sign and the V chord marked with a flat sign. Below the notation, the chords are labeled: C Maj., V⁷/V, V, and I.

A secondary dominant or a sequence of secondary functions do not undermine the tonal feeling but rather enhance it by underlining a diatonic function of the main key. In describing such a progression, some European theorists use the term "inflection" as opposed to "modulation", the change of tonal center.

The use of chromaticisms became so extensive by the second half of the 19th century that any sound of the chromatic scale could be interpreted as part of any key. Here are a few examples in C Major: a) g flat as 7th in V⁷/N; b) f# as 3d in V/V; c) a flat as 9th in V⁹; d) c# as 3d in V/II or V/V/V.

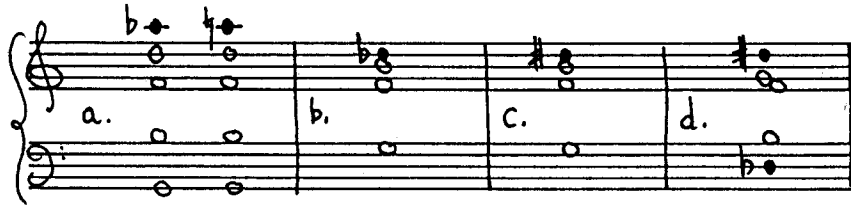
Ex. 4

Ex. 4 shows four examples of chromatic alterations in C Major. The notation consists of two staves. The first staff contains four examples: a) V⁷/N (F#-A-C), b) V/V (F#-A-C), c) V⁹ (C-E-G-Ab-Bb), and d) V/II (D-F-A) or V/V/V (D-F-A). The second staff contains the same four examples, with the V⁹ chord marked with a flat sign and the V/II chord marked with a sharp sign. Below the notation, the chords are labeled: C Maj., V⁷/N, N⁶, V/V, V⁹, I, V/II, and V/V/V.

However, certain alterations or groups of alterations do appear in the 18th and 19th centuries music much more frequently than others. They are part of the "common practice" used by all composers of that period. Besides secondary dominants, the most used chords are (all following examples are in C Major):

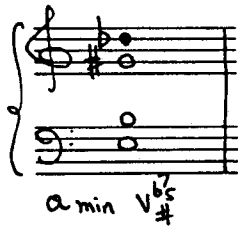
- A. a) the Dominant 9th with either m9 or M9; b) the Dominant 7th with the lowered 5th; c) the Dominant 7th with the raised 5th; d) the Dominant 7th with both lowered and raised 5th.

Ex. 5



And, not so often but still in use, the Dominant with the lowered 7th in minor keys:

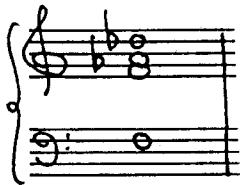
Ex. 6



B. The Neapolitan 6th chord:

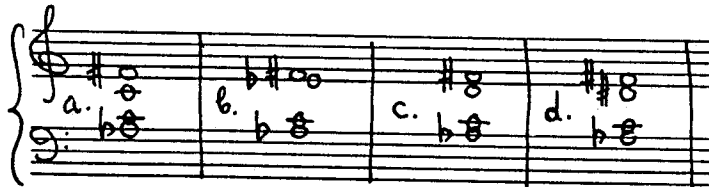
Ex. 7

or in root position, as Chopin, for example, likes to present it:



C. The Augmented 6th. Chords, Subdominant in function a) Italian; b) German; c) French and d) Doubly Augmented, or English:

Ex. 8



D. The Raised Supertonic, raised Subdominant (a), and the Raised Submediant, raised Tonic (b) chords (common tone chords):

Ex. 9



Although less frequent, the following are still characteristic for the idiom used in these centuries:

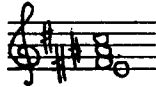
E. The Augmented triad, a) on the Tonic, b) on the Subdominant and c) on the Dominant:

Ex. 10



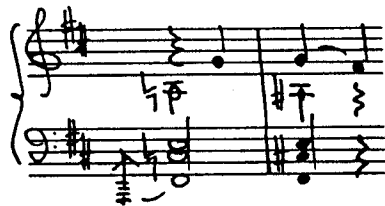
F. The raised Subdominant chord (all elements are altered except the 7th, when present):

Ex. 11



This chord along with conglomerates of chromatic tendency tones, may be best described as Appoggiatura Chords:

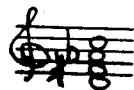
Ex. 12



(from C. Franck)

It should be noted that the above chords have not only a specific structure, but that the way they progress to the next chord is typical for the common language of the 19th century. In fact, there are instances when such chords can not be positively identified out of their tonal context, which is to say by ^{only} taking into account their intervallic structure. For instance,

Ex. 13



could either be G: $V_{\flat 5}^7$ or C: V_{\sharp}^7/V , or C: II_{\sharp}^7 (French Augmented 6th). Especially when considering the numerous intentional misspellings that abound in romantic music, such ambiguities can be dissipated only by determining the tonal function of such a chord and by correctly following the ~~actual~~ ^{actual} resolution of its tendency tones. A characteristic example:

Ex. 14

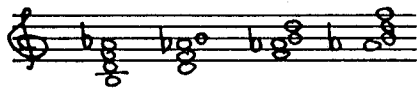


which could be: D : VII, G:II (a#) or C:VII//

When listening to the music, without referring to a score, the element of surprise is even greater and the mind has to re-assess the relation just heard and compare it with the expected resolution.

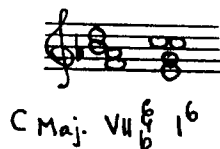
Some chords are particularly apt to create such ambiguities due to their symmetric structure. A good example is the Diminished 7th chord build on the VII degree of a major or minor scale (if in a major scale, the VI degree is lowered). Its root position as well as all its inversions include only one interval, the minor third, and its enharmonic equivalent, the augmented second:

Ex. 15



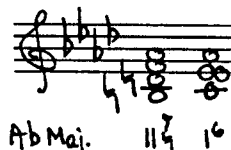
It is also known as V^{o9} (Dominant 9th without fundamental) or as a "fully diminished chord". As such, its function is Dominant and it resolves to the Tonic:

Ex. 16



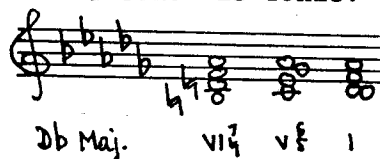
At the same time, a chord with an identical structure can be built in major, on II by chromatically raising the Supertonic and the Subdominant:

Ex. 17



Similarly, the same structure can be found on the raised VI degree of a major scale; in this case, its function is Tonic:

Ex. 18



In short, the same aggregate of four sounds can have three different meanings in the tonality (T,SD, D) belonging in each case to a different key. The ambiguity is compounded by the possibility of respelling enharmonically one or more of its sounds:

Ex. 19

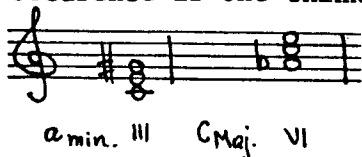


Thus, one chord may belong to twelve keys at a time:

As VII in	C	Eb	F# or Gb	A
As II in	Ab	B	D	F
As VI in	Db or C#	E	G	Bb

Another symmetrically built chord, the Augmented triad, contains only the major 3d interval and its enharmonic equivalent, the diminished fourth. It can be found on the III degree in minor keys (chromatic and melodic minor) as well as on a lowered VI in major (frequent occurrence if one thinks at the incidence of minor 9th chords on V):

Ex. 20



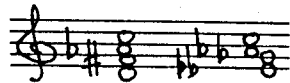
Adding the chromatic possibilities listed above (Ex. 9), as well as all the enharmonic respellings available, leads to the following chart showing nine different keys in

which an Augmented triad can be resolved:

As I	C	E	Ab	
As III	a	c#	e# or f	(there are in this chart six redundant
As IV	G	B	Eb	resolutions, either to exactly the
As V	F	A	C# or Db	same key - as I and VI - or to minor
As VI	E	Ab	C	homonymes - as <u>V</u> and III)

Finally a last example of double-meaning created by a symmetrical structure:

Ex. 21



It can be analysed both as a French Augmented 6th chord or as a Dominant 7th with the fifth lowered, as shown in Ex. 13.

It is through devices such as : complex chromatic alterations, enharmonic changes, functional ambiguities or frequent and sudden modulations to far away keys that the tonal hierarchy and its relations of order were weakened to the point of becoming irrelevant. Hogo Wolf's song "Mignon" exemplifies another case limit: The tonality defined by the key signature is only implicit and the G minor Tonic chord is never present, except for a brief moment, in bar 14 where it is presented in first inversion.