



No 6: Tonality

So far in this series we have covered five music elements and seen how they are full of opposites.

Rhythm is long and short sounds and silences. Beat is even just like seconds ticking on a clock. Melody is high and low notes following each other like words. Harmony is the opposite of melody because two or more notes sound at the same time. Dynamics is loud and soft sounds. Tempo is fast and slow speeds. Together they form a powerful, persuasive music medium. And we've only looked at five out of fourteen elements!

This article covers one of the lesser known elements, tonality, which does not have opposites like the above. The essence of tonality is relationships and connections between sounds. A simple definition is 'tonality is how the notes are joined or related to each other.' It is impossible to hear the effects of tonality in a written article such as this so I will use analogies to help explain. Tonality must be heard to be fully understood.

Tonality connects notes. No note is a part of music unless it appears in context. It is the same as letters of the alphabet. If we take one letter (e.g. **p**) it means nothing unless it is a part of a word (**pig, apple, tap**). Likewise one person alone has no purpose. John Donne wrote, 'No man is an island.' A good analogy for tonality is how members of a family are related and connected with each other through marriage. Family relationships are vital and each person needs a relationship with others so society can function. God designed families in this way. After He created Adam He said 'it is not good for man to be alone', so He created Eve (Genesis 2:8). As well as earthly relationships, humans need a relationship with their heavenly Father God in order to carry out His design and will. Adam and Eve walked and talked with their Father in the Garden of Eden, and today we too can have a relationship with our Creator.

Herein lies the origin and essence of tonality in music. It teaches us that God created relationships between Himself and people and wants us to remain intimately connected with Him. Ephesians 2:10–22 describes so beautifully God's original plan for His beloved mankind. We were created in Christ Jesus to do good works before we even knew it. We were never designed to be separated from God to become foreigners, aliens and strangers. Jesus came and died for us so the dividing wall would be broken down and we can be fellow citizens in God's own household. We can be rebuilt together, joined and related to become a dwelling place in which God lives by His Spirit.

We seem to have departed from music but it is important to establish the foundation of tonality with God, the Creator of relationships. Let's now apply this to music and see how tonality (or lack of it) can reflect man's relationship with God.

What does tonality sound like? Distinguishing melody from harmony and rhythm seems easy by comparison. The best analogy I can come up with is food flavourings. The easiest way to tell the difference between a Valencia orange and a blood orange is to taste and compare. One is sweeter than the other. The sweetness or tartness permeates the whole fruit. Likewise, tonality 'flavouring' underlies a whole musical piece. With music we don't taste but we hear the sounds and compare.

Spiritually speaking, we can relate tonality to the Holy Spirit. Tonality permeates the music — it is invisible yet everywhere in the sounds. Through the power of the Holy Spirit, God is also invisible yet omnipresent. John 3:8 tells us the Holy Spirit is like the wind. We only know the air is present when we feel the wind or see its effects. The Holy Spirit is like this both in the world and in our hearts. In the same way we only know tonality in music when we hear and feel the effects.

Back to music details now. Two most common tonality 'flavourings' used today are called **major** and **minor**. Major sound-flavour can be described as happy, joyful, bright, uplifting (e.g. *Joy to the World*). Minor sound-flavour is often described as sad, doleful, and melancholic (e.g. the first

movement of Beethoven's *Moonlight Sonata*). Minor sounds can also be dramatic, exciting and mysterious (e.g. the second movement of the same sonata). Composers select major or minor 'flavours' according to what they wish to express. This in turn will affect the listener's feelings.

A Valencia orange is sweeter than a blood orange and the juice can be analysed chemically to find out why. We can perform a similar process with major and minor tonality families by breaking them down. Major and minor 'flavours' sound different because they use notes in different patterns called **scales** or **keys**. Scale simply means 'a ladder'. The sounds climb higher in a certain pattern of steps and half steps called **tones** and **semitones**. Simply put, on a keyboard, a tone is the gap between two keys with one white or black key in between. A semitone is the gap between two keys with no black or white key between.

Major keys all have the identical pattern of tones (T) and semitones (S) — T T S T T T S. A piece in the key of C major uses the keyboard notes C D E F G A B C. If you start on any note and follow the same pattern the sound will always be major. Minor keys lower or flatten the third and sixth notes to change the sound completely — C D E \flat

F G A \flat B C. The pattern changes to T S T T S 1½ S. You can try this out for yourself if you have a keyboard. Because of the constraints of this article we will just stick with the simplest key of C.

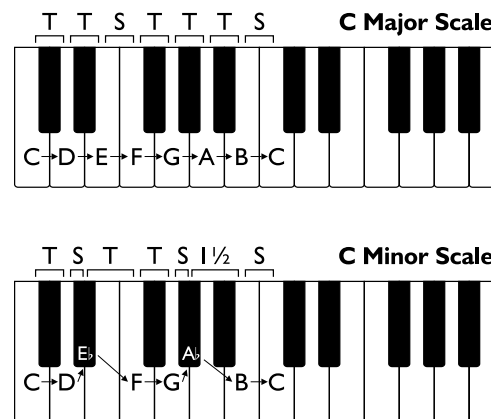
In the key of C a composer uses the notes in that scale as a basis so let's look closely at what the C scale consists of. This applies to major and minor scales alike. There is a hierarchy with levels of authority and relationships within the scale. Each note has a **scale degree number** with a certain value, importance and a role to play.

I	II	III	IV	V	VI	VII
C	D	E	F	G	A	B

The first rung/note of the ladder (I) has the highest authority and we know the piece or section is finished when it is heard. The fifth note (V) is the next level and the fourth note (IV) follows. These are the three primary levels in the hierarchy. The strongest

relationship heard is between V and I to form a strong ending (known as a **perfect cadence**). The next strongest is IV and I (known as a **plagal cadence**).

The scale is the foundation for melody. Melodies and chords don't just happen by chance. C major melodies use notes in the C major scale. C minor uses notes in the C minor scale.



Any other notes are either incorrect or not related. It's like finding a piece of hot chilli in a sweet apple pie. In the family analogy it is like an unwanted intruder entering the house. We know instantly something is not right. Having said that, notes besides those in the scale are often used for special purposes. They can indicate a change in direction to a new key—like adding cream on top of the pie or one family visiting another. Technically this is called **modulation**. Other incidental notes can also add interest—like adding some cloves to the apple pie or friends dropping in for a short visit. Technically these are called **passing notes**. But whilst these variations exist, the underlying scale remains the base which the other notes build upon.

The scale is also the foundation for harmony. The three **primary chords** are based on the I, IV and V scale degrees. For example, the number I chord (C) uses the first, third and fifth notes of the C scale—C E G. The number V chord (G) uses G B D and the F chord uses F A C. In this way all notes of the scale are included in the primary chords. Chords built on the remaining degrees (II III VI VII) are called **secondary chords**. Composers are well aware of such hierarchy and select every single note according to the message they want to convey to the listener. Tonality does not happen by chance.

History sheds a very interesting spiritual light on the above. In the eleventh century a monk, Guido D'Arezzo, began the **solfege** system which is commonly used by singers today. He named each note—**Ut, Re, Mi, Fah, Soh, Lah**. Later **Ti** was added to lead

back into **Ut** again. The fascinating thing is that **Ut** was changed to **Doh** which comes from the Latin word *domini*, meaning 'God' or 'Lord'. Another similar Latin word, *domus*, means 'home.' This note Doh is very important because it gives the melody and harmony a feeling of finishing — coming home to rest on the number I note and the number I chord. For this reason I like to call it the God-note, heaven note, home note or key note (technically it is called the **tonic**). This musical home with God symbolises how we can have a strong relationship with our heavenly Father and finally go to our spiritual home in heaven. I also liken the V note and chord with the earthly father of the family, next in authority to God (technically it is called the **dominant**). Number IV is the mother and the remaining notes in the scale are the children.

The whole tonality jigsaw puzzle comes together as we see the spiritual aspects in the music. The very word *tonality* comes from the Greek word *tonos*, meaning 'tension, pitch and key'. We hear connections between tensions created by the notes (itches) of the ladder (key, scale) and the resolution of tension when the music finishes on the Doh note. Tensions in families as well as in the world can be resolved if we make God the highest authority in the basic family unit. God designed us to be in a relationship with Him and for us to be in His family. Tonality in music is a reflection of relationship, this wonderful character attribute of God. Relationship with Him is the key to successful living in a tension filled world.

The principles outlined here can be applied to many other keys besides C major and C minor. Readers with more music knowledge will understand this deeper and understand how composers have many choices to work with. But let's now apply the above principles to music throughout history. An awareness of spiritual aspects clarifies much confusion and concern about why music is the way it is today.

In the Ancient times and Middle Ages early scales were called **modes**. There were about twelve modes to learn, many more than we use today. Ancient philosophers and musicians knew their sound flavours. For example, the **mixolydian** mode sounded gloomy, depressing, and was used for mourning. **Hypodorian** mode was tender and gentle. **Dorian** mode was used for rousing, military purposes. **Lydian** mode was sensual, soft, immoral, dangerous and ensnaring.

In the Renaissance and Baroque (1600–1750), the **Ionian** mode became known as major and has continued to be popular today. The **Aeolian** mode was called **natural minor** and changed into **harmonic minor** by sharpening the seventh note, and this is still common today. For several hundred years the ancient modes were rarely used but in the twentieth century they gradually came back into use in jazz and contemporary styles. Catholic and High Anglican churches kept using them in their chants.

There are many other types of scales with different effects on listeners. The Chinese five note **pentatonic scale** has been

used for thousands of years and gives an oriental flavour. Play only the five black keys on your keyboard to hear it. In the late nineteenth and twentieth centuries, composers experimented with whole tone scales (i.e. no semitones) and adapted a vague, fuzzy sound reminiscent of blurry, fuzzy, impressionist art. **Polytonality** combines different scales at the same time. The **chromatic scale** consists of all twelve semitones between one C note and the next.

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It has been known for millennia that music reflects the state of society. Plato wrote about this in his book 'The Republic.' Aristotle described music and society in his work, 'Politics.' Twentieth century music also reflects the state of various societies. For example, in much eastern music there is no definite ending with resolution on a Doh, thus reflecting the belief in reincarnation and life being a circle with no ending or heaven to rest in. Listen to how many radio shows fade out from one song and straight into the next. Another example is found in the blues scale with its flattened notes which perfectly describes the low, flat feelings of a depressed person.

Music using the chromatic scale in the 'twelve tone row' system contains all twelve notes which have equal value with no hierarchy. Each note has to be used before another

is repeated. Interestingly this occurred at the same time as the rise of communism in which everyone is supposed to be equal. Many composers experimented with **atonality** — no scale at all. This reflects the increase in atheism. Taking away the Doh, its tonal centre and hierarchy takes away the concept of God, family, marriage and relationships. We can see this breakdown throughout society today because God is denied. In 'Chance music' we see a reflection of evolutionary theory that we are only here by chance. I remember as a university student having to throw a dice to determine which notes were to be played. However it was forgotten that someone had to throw the dice and write the notes down!

All of these types of scales really have to be heard to properly understand tonality. So next time you are listening to music, try to at least identify major or minor. The main thing to remember is that tonality is all about relationships, and these relationships can reflect our spiritual condition. God created relationships between Himself and people. And in Him we are created to become a dwelling in which God lives by His Spirit (Ephesians 2:22). As this beautiful hymn from C H Morris says:

Nearer still nearer, close to Thy heart,
Draw me my Saviour, so precious Thou art.
Fold me, O fold me close to Thy breast.
Shelter me safe in that haven of rest.
Shelter me safe in that haven of rest. ■

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