Jermaine Griggs Featuring CHUKU ONYEMACHI

QUICK GUIDE ON

Consonant Intervals

BUILDING BLOCKS OF MAJOR AND MINOR TRIADS

Acknowledgement

I want to start by thanking **God** for his grace upon my life and career – especially for the privilege of being alive and healthy.

I also want to thank my mentor and role-model, who happens to be the foremost music educator of the 21st century – Jermaine Griggs. Thank you for the privilege to share my thoughts with the biggest musician community online.

I want to also acknowledge members of the HearandPlay[®] team in Nigeria. I want to specially thank **Abasifreke Emmanuel** and **Akanimo Inyang** who contributed to this work in terms of typing and the graphical illustrations, respectively.

Hey Everyone!

I'm Jermaine Griggs, the founder and president of HearandPlay Music Group.

We specialize in teaching hundreds of thousands of musicians around the world how to play music by ear.

Here's a Quick Guide on Consonant Intervals that will help you thoroughly understand what chords are made up of.

On behalf of our indefatigable instructors, I want to say congratulations in advance!!!

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California, USA.

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PRELIMINARY CHAPTER Introduction to Consonant Intervals

INTRODUCTION

An **interval** is the distance between two pitches heard simultaneously (together) or successively (separately).

When played simultaneously, they are called *harmonic* intervals. When played successively (separately), they are called *melodic* intervals.

When these two notes are sounded, they either sound pleasant or unpleasant. The goal of this **Quick Guide** is to present you with ideas on consonant intervals that are relevant to construction of Major and minor triads.

DEFINITION OF CONSONANT INTERVALS

Consonant intervals in western music are intervals that sound agreeable, as opposed to dissonant intervals which we are going cover in another lesson in this quick guide series.

Consonant intervals include Major and minor thirds, Major and minor sixths and the perfect fifth.

CONTRASTING THIRDS AND SIXTHS

Now, it's important to say at this point that thirds and sixth are related. Inversion is the relationship between thirds and sixths. Inversion of a third will yield a sixth and vice versa. For example C-E (a third) when inverted yields E-C.

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C-E is a third while E-C is a sixth.

C-E in the illustration above, spans three diatonic degrees, while E-C *below* spans six diatonic degrees.



Understanding of inversion as the intervallic relationship of thirds and sixths, will prove helpful as we progress.

One more thing...

Inversion of intervals changes its quality – perfect intervals are an exception to this. A major quality will change to a minor quality and a minor quality will change to a major quality.

Put this together and you'll discover that inversion changes two intervallic factors. Inversion changes the Quality and Quantity of intervals. The interval below is a Major Third



Here's a proper way to understand the quality and quantity of the interval above (and any other interval).

Major Third - Major refers to the **quality** of the interval and the *harmonic environment* it is associated with.

Major **Third** - Third refers to its **quantity**, which is the size of the interval (determined by the number of scale tones encompassed).

In inversion, there are two simple processes:

Inversion of quality and Inversion of quantity.

Words like MAJOR describe quality while words like THIRD describe quantity.

Alright, let's put our knowledge to work by inverting a few intervals. Good news is that you don't need a keyboard for this.

Example #1 - Major Third

Inversion of Quality – Major becomes Minor

Inversion of Quantity – Third becomes Sixth

Therefore, a Major Third becomes a Minor Sixth after inversion.

Example #2 - Minor Sixth Inversion of Quality – Minor becomes Major Inversion of Quantity – Sixth becomes Third Therefore, a Minor Sixth becomes a Major Third after inversion.

Example #3 - Minor Third

Inversion of Quality - Minor becomes Major

Inversion of Quantity – Third becomes Sixth

Therefore, a Minor Third becomes a Major Sixth after inversion.

Example #4 - Major Sixth

Inversion of Quality - Major becomes Minor

Inversion of Quantity – Sixth becomes Third

Therefore, a Major Sixth becomes a Minor Third after inversion.

During the **simple** process of inversion, minor will become major and sixths will become thirds and vice-versa.

TERTIAN HARMONY

In European art music (aka - "classical music"), thirds (and sixth [its inversion]) are used in harmony. When we are talking about harmony, it refers to the relationship between notes that are heard together. These note combinations don't just happen - No! A class of harmony is used and the class of harmony used in this case is the tertian harmony. In this class of harmony, notes can be harmonized using these consonant intervals –thirds (and sixths [its inversion]). Oops! Looks like we've forgotten the perfect fifth.

PERFECT FIFTHS

This is another consonant interval. In classical music, it is called the *perfect consonance*. This is because, it contains two important scale-degree notes – the tonic and the dominant. In the Major Scale of C:

C is the tonic while:



G is the dominant:



The perfect fifth is the relationship in pitch between the tonic and the dominant.



When a perfect fifth is inverted, its quality remains the same. Perfect intervals remain perfect even after inversion.

The same way we know **states** and their respective **capital cities**, every musician must be familiar with the tonic and dominant of all the keys (24 of them [12 Major + 12 Minor keys]). So the relationship between the tonic and the dominant yields a perfect fifth in all keys.

BUILDING BLOCKS OF TRIADS

Triads contain three elements – that's why they are called **tri**ads. The Root, the Third and the Fifth.

From the *intervallic* elements of the triad, we can see that it contains a third and a fifth. This means that consonant intervals are the building blocks of triads. It is with thirds and fifths that triads are built and most thirds and fifths are consonant. There are diminished and augmented thirds and fifth, and they are dissonant intervals. So we can categorize triads into consonant and dissonant triads.

Major and minor triads are formed from consonant intervals *unlike diminished and augmented triads that are formed from dissonant intervals*. Triads formed from consonant intervals are called concord.

Major and minor triads share one thing in common – they are concords. The intervals that make them up (the quality of third and fifth) are consonant. Below are the qualities of third and fifth that are consonant:

- Major 3rd
- Minor 3rd
- Perfect 5th

There are two qualities of thirds and one quality of fifth and that implies that Major and minor triads differ in their quality of thirds and have a perfect fifth in common.

The Major triad will have a Major third and the minor triad will have a minor third. This is a little bit different in diminished and augmented triads, which we'll explore while studying dissonant intervals.

THE INTERVALLIC DIFFERENCE

Considering that Major and minor triads have the same quality of fifth, that means that the difference

between a Major and a minor triad is in the quality of third used. Knowledge of all the Major and minor thirds in the keyboard is indispensable, invaluable and priceless.

That's why this **Quick Guide** is packaged for you. A complete guide on the mastery of **Consonant Intervals** in ALL the keys.

There are Five Chapter in this quick guide with graphical illustrations using virtual keyboard diagrams. You are going to find it easy to use because for the first time ever, we're organizing intervals according to their color patterns. SECTION 1 FIFTHS

Welcome to the realm of the Perfect fifth. Never forget that you should know your fifths like you know states and capital cities. Perfect Fifths are easy to play because of their color patterns. 83% of perfect intervals on the keyboard have one color. So, for most fifths, if the root is black, then the fifth will also be black: if the root is white, then the fifth will also be white.

CHAPTER 1 Perfect Fifths

INTRODUCTION

In this chapter, Perfect Fifths are categorized here according to their color patterns. There are four color patterns:

White – White

Black – Black

White – Black

Black – White

	White	Black
White	White-White	White-Black
Black	Black-White	Black-Black

In this chapter, we're simplifying the learning process by organizing the perfect fifths that share the same color patterns. This will help you memorize them easily. It will take a little time and effort on your side. However, once mastered, playing will be *natural* just like remembering your name.

White - White













Black – Black









White – Black



Black - White



CONCLUSION

Color Patterns

Only 17% of fifths change color pattern when inverted.

B changes from White-Black to Black – White:



...while B b changes from Black – White to White-Black





Quality and Quantity

Inversion of Quantity - Fifths become Fourths

Inversion of Quality - Perfect remains Perfect

Quality	-	Perfect remains Perfect
Quantity	-	Fifths become Fourths

All Perfect Fifths when inverted become Perfect Fourths SECTION 2 THIRDS

Thirds are the building blocks of harmony. Knowledge of thirds – Major and Minor – in all the keys will help you as you advance in harmony. Every tertian chord [no matter how large], is divisible into thirds

CHAPTER 2 Major Thirds

INTRODUCTION

In this chapter, Major thirds are categorized here according to their color patterns. There are four color patterns:

White – White

White – Black

Black – White

Black – Black

	White	Black
White	White-White	White-Black
Black	Black-White	Black-Black

In this chapter, we're simplifying the learning process by organizing the thirds that share the same color patterns. This will help you memorize them easily. It will take a little time and effort on your side, however, playing will be *natural* just like remembering your name.

White - White







White – Black









Black – White








Black – Black



CONCLUSION

Color Patterns

When Major thirds are inverted, their color patterns may change too.

White-Black intervals will change to Black-White and vice-versa.

E.g.



The color pattern of D-F # will change from White-Black to Black-White.



White-White and Black-Black intervals obviously do not change their color pattern.



The color pattern of F#-A # will remain Black-Black.



Quality and Quantity

Color patterns change when triads are inverted, but most importantly, quality and quantity changes.

Quality-Major becomes MinorQuantity-Third becomes Sixth

All Major Thirds when inverted become Minor Sixths CHAPTER 3 Minor Thirds

INTRODUCTION

In this chapter, Minor thirds are categorized here according to their color patterns. There are four color patterns:

White – White

White – Black

Black – White

Black – Black

	White	Black
White	White-White	White-Black
Black	Black-White	Black-Black

These minor third intervals are organized according to color patterns. This will help you memorize them easily. It will take a little time and effort on your side, however, playing will be *natural* just like remembering your name.

White – White









White – Black







Black – White







Black – Black



CONCLUSION

Color Patterns

When Minor thirds are inverted, their color patterns may change too.

White-Black intervals will change to Black-White and vice-versa.

E.g.



The color pattern of C-E $\flat\;$ will change from White-Black to Black-White.



White-White and Black-Black intervals obviously do not change their color pattern.

E.g.



The color pattern of D-F will remain White-White.



Quality and Quantity

Color patterns change when triads are inverted, but most importantly, quality and quantity changes.

Quality - Minor becomes Major

Quantity - Sixth becomes Third

All Minor Thirds when inverted become Major Sixths

IMPORTANT: You can derive minor third intervals by *shrinking* Major Third intervals by a semitone. There are two ways to shrink an interval.

E.g.

Let's subject C-E (a Major Third interval) to this shrinking process.

Raising the *Lower note* by a **semitone**. When the lower note (which is C) is raised by a semitone, the interval becomes C#-E.



However C # - E is a C # minor third interval. This is a minor third interval, however, it's on a different note.

Lowering the *Upper note* by a **semitone**. When the upper note (which is E) is lowered by a semitone, the interval becomes C-E \flat .



C-E \flat is a C minor third interval.

Shrinking the C-E interval using the techniques we covered will yield two minor third intervals C#-E and C-E \flat . However, the former yields a minor interval on a different key, whereas, the latter yields a minor interval on the same key.

It is a common practice to shrink intervals by lowering the upper note.

ENHARMONIC INTERVALS

All the Minor third intervals covered in this chapter are enharmonically equivalent to Augmented Second Intervals. This means that the difference between the Minor third and the Augmented Second is spelling. However, practically, the ear cannot distinguish an Augmented Second from a Minor third interval.

E.g.

C-E ightarrow and C-D $mathcal{#}$ are two different intervals – Minor 3rd and Augmented 2nd Respectively. However, they look alike on the keyboard and sound practically the same.





Spelling properly using traditional guidelines is beyond the scope of this course. HearandPlay 130 – All You Need To Know About INTERVALS will give you a thorough breakdown on intervals. SIXTHS

Welcome to Section 2. Here, you'll be playing "bigger" intervals. These bigger intervals and the smaller ones we covered in the Section 1 have something in common. Are you ready for sixths?

CHAPTER 4 Minor Sixths

INTRODUCTION

Minor Sixths are just a *shadow* of the Major intervals we learnt in the previous section. There are so many things you'll see for yourself in this section. We chose to start with Minor sixths because they are related to Major scales we covered in Chapter 1. As usual, below are the obtainable color patterns

White – White

White – Black

Black – White

Black – Black

	White	Black
White	White-White	White-Black
Black	Black-White	Black-Black

In this chapter, we're simplifying the learning process by organizing the thirds that share the same color patterns. This will help you memorize them easily. It will take a little time and effort on your side, however, playing will be *natural* just like remembering your name.

White - White







White – Black









Black - White









Black - Black



CONCLUSION

Color Patterns

When minor Sixths are inverted, their color patterns may change.

White-Black intervals will change to Black-White and vice-versa.

E.g.



The color pattern of C-A $\flat~$ will change from White-Black to Black-White.



White-White and Black-Black intervals obviously do not change their color pattern.



The color pattern of A #-F # will remain Black-Black.



Quality and Quantity

Color patterns change when triads are inverted, but most importantly, quality and quantity changes.

Quality	-	Minor becomes Major
Quantity	-	Sixth becomes Third

All Minor Sixths when inverted become Major Thirds

IMPORTANT: You can derive minor sixth intervals by *shrinking* Major sixth intervals by a semitone. There are two ways to shrink an interval E.g.

Let's subject C-A (a Major Sixth interval) to this shrinking process.

Raising the *Lower note* by a **semitone**. When the lower note (which is C) is raised by a semitone, the interval becomes C#-A.



However $C \ddagger -A$ is a $C \ddagger$ minor sixth interval. This is a minor sixth interval, however, it's on a different note.

Lowering the *Upper note* by a **semitone**. When the upper note (which is A) is lowered by a semitone, the interval becomes C-A \flat .



C-A \flat is a C minor sixth interval.

Shrinking the C-A interval using the techniques we covered will yield two minor sixth intervals $C \ddagger -A$ and C-A \flat . However, the former yields a minor interval on a different key, whereas, the latter yields a minor interval on the same key.

It is a common practice to shrink intervals by lowering the upper note.

ENHARMONIC INTERVALS

All the Minor sixth intervals covered in this chapter are enharmonically equivalent to Augmented Fifth Intervals. This means that the difference between the Minor Sixth and the Augmented Fifth is spelling. However, practically, the ear cannot distinguish an Augmented Fifth from a Minor sixth interval. E.g.

C-A \flat and C-G \ddagger are two different intervals – Minor 6th and Augmented 5th respectively. However, they look alike on the keyboard and sound practically the same.





Spelling properly using traditional guidelines is beyond the scope of this course. HearandPlay 130 – All You Need To Know About INTERVALS will give you a thorough breakdown on intervals. CHAPTER 5 Major Sixths

INTRODUCTION

Intervals come in four color patterns:

- White White
- White Black
- Black White

Black – Black

	White	Black
White	White-White	White-Black
Black	Black-White	Black-Black

This chapter will help you play Major sixth intervals with absolute ease by categorizing them according to their respective color patterns.

It will take a little time and effort on your side, however, playing will be *natural* just like remembering your name.

White – White








White - Black







Black - White







Black – Black





CONCLUSION

Color Patterns

When Major Sixths are inverted, their color patterns may change too.

White-Black intervals will change to Black-White and vice-versa.

E.g.



The color pattern of E-C # will change from White-Black to Black-White.



White-White and Black-Black intervals obviously do not change their color pattern.



The color pattern of C-A will remain White-White.

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Quality and Quantity

Color patterns change when triads are inverted, but most importantly, quality and quantity changes.

Quality	-	Major becomes Minor
Quantity	-	Sixth becomes Third

E.g.

All Major Sixths when inverted become Minor Thirds

ENHARMONIC INTERVALS

All the Major Sixth intervals covered in this chapter are enharmonically equivalent to Diminished Seventh Intervals. This means that the difference between the Major Sixth and the Diminished Seventh is spelling. However, practically, the ear cannot distinguish a Diminished Seventh from a Major Sixth interval. E.g.

C-A and C-B $\flat \ \flat$ are two different intervals – Major 6th and Diminished 7th respectively. However, they look alike on the keyboard and sound practically the same.





Spelling properly using traditional guidelines is beyond the scope of this course. HearandPlay 130 – All You Need To Know About INTERVALS will give you a thorough breakdown on intervals.

Consonant Intervals

THE BUILDING BLOCK OF MAJOR AND MINOR TRIADS

Workbook 50 Exercises

Add the corresponding **<u>Perfect Fifth</u>** to the following Notes.

Answer the questions on the next page by dotting the appropriate chord tone that is a perfect fifth *above* the given note.

Question:



Answer:



Hey! It's time for evaluation. Let's see how well you've learned and memorized perfect fifth intervals.



















Add the corresponding <u>Major third</u> That Will Yield A MAJOR CHORD to the following Perfect Fifth intervals.

I suppose you are now familiar with Perfect Fifth Intervals. There are perfect fifths on the subsequent pages. Each perfect fifth needs an additional Major third from the root of the interval to become a Major chord. Kindly add the Major third intervals.

Question:



Answer:



On your mark! Get Ready !! Go! !!











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Add the corresponding <u>Minor third</u> That Will Yield A **MINOR CHORD** to the following Perfect Fifth intervals.

I hope you enjoyed the last set of 20 exercises? Alright! On the subsequent pages, you'll find something similar. Each perfect fifth needs an additional Minor third from the root of the interval to become a minor chord. Kindly add the Minor third intervals.

Question:



Answer:



Hey! No more exercises after this, okay? Fasten your seat-belt as we go through the last set of 20 exercises.

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Consonant Intervals

THE BUILDING BLOCK OF MAJOR AND MINOR TRIADS

Workbook Answers

ANSWERS TO QUESTIONS 1 - 10





















ANSWERS TO QUESTIONS 11 – 30





















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ANSWERS TO QUESTIONS 31 - 50















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A Note About Hear and Play Fundamentals 130 -"Intervals"

If you enjoyed this free guide, you're sure to benefit greatly from the upcoming full, comprehensive Hear and Play 130 series - "Intervals."

More information will be available shortly.

Meanwhile, fill out this form to let us know you're interested.

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