The Theory of Music for Jazz Piano
Blake Temple
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This is the outline of the Theory of Music I wrote and sent in an email to my daughter Annie Temple many years ago after she asked me to find the chords in a song she liked. Several people have asked me to forward this to them, so I decided to put it on my website. Annie, like myself, loves music and the piano, and I left it in its email form to make it more friendly.

There is nothing new here. It is the beginning. It is not intended to be comprehensive. Rather, it is my take on the *simplest* honest starting point for Jazz Piano. I would not call it elementary, I would call it *elemental*. It is the *point of departure* for modern Jazz improvisation. What is most important is what has *not* been put in. This is what made Jazz Piano accessible to me when I started playing in my mid-forties. I took lessons from several people, but it was the late Jerry Murphy, (one of the truly great Sacramento jazz pianist of his era) who set me on this course. I suggest you learn this BEFORE you learn to read music. (If like me, you have a difficult time reading music, be assured you do not have to learn to read music to improvise. But it certainly doesn't hurt!)

The Main Point, a Remarkable Fact: There are 12 keys, each with seven different diatonic seventh chords, making 84 chords distributed almost randomly through the black keys, to keep track of...but... altogether they come in only FOUR varieties...Maj7, Min7, Dom7, Dim7.

That is why a Jazz pianist looks like a genius...how can anyone

possibly keep track of 84 chords? The trick...explained below...is that in some sense you only have to keep track of four of them!!!

This presents the elemental starting theory for playing Classical Jazz Piano...and actually is elemental for all of Western music based on dividing an octave into twelve equal notes. My experience is that once you understand what is here, you are ready for the exercises–practicing each of the twelve scales and each of the diatonic seventh chords in each scale, going up and down the scale in each key, always dropping by fifths through the keys as you practice each one separately–that is, the exercises that teach your left hand to play what you can understand in a nutshell below–then you are on your way to piano improvisation. You can learn this and teach your left hand with the exercises in one or two years, even at age 45! I also found it enormously helpful to spend time trying to *visualize* the keyboard, the keys, the spacing between notes in each chord, and where the black notes fall in the diatonic seventh chords in each key. Virtual exercises of the imagination are easier to do than physical exercises, and can be done *anywhere*. (Well, I am a mathematician well practiced at this!) I recommend you do them as you fall asleep and first thing in the morning when you wake up. But take warning...I promise you...your girlfriend will not appreciate you doing virtual exercises while in her company! (That applies to boyfriends as well.) This is advice someone should have given me!

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1 First Lesson:

Hi Sweetheart: I love the song. [For the purpose of these notes it doesn't matter what the song was!] *It is really beautiful. I worked it out on the piano for you as follows:*

The main song is a I-III-IV. That is, one measure on I-Chord, then one (transitional beat) on III-Chord, and then resolve on the IV-Chord.

Be patient! I will explain!

In the key of C, this translates to:

I=Cmaj7
III=Em
IV=Fmaj7

Please humor me while I explain:

Each key has a scale, *do, re, me, fa, so, la, te, do.* That is, seven different notes (second *do* is an octave above the first *do*). There are twelve different keys depending on the note you start with ($A, B\flat, B, C, D\flat, D, E\flat, E, FG\flat, G, A\flat$...., twelve in all, count them!)....eg, the key of C starts at C-note and hits the seven white notes

do=C, re=D, me=E, fa=F, so=G, la=A, te=B, do=C.

Try it on the piano!

The chord that starts at a note in the scale is named by that chord...the C-Chord (the I-Chord since it starts at the first note of the scale) is the chord that starts at C, and then hits every

other note, starting at C, IN THE SCALE OF C. That is, it hits the notes *do-me-so-te*=CEGB. That is the chord Cmaj7, the first chord of the C scale.

To get the III-Chord in the key of C, go to the third note of the scale, *me*=E, and play the chord in the key of C starting at E. That is, the III-Chord in the key of C is the chord starting at E and playing every other note for four notes...that is *me-so-te-re*=EGBD, which is the Em7 chord.

To get the IV-Chord in the key of C, start at the fourth note "fa=F" in the key of C, and play every other note in the key of C starting at F...that is *fa-la-do-me*=FACE.

That is the chord Fmaj7.

Thus, your song, which is a I-III-IV, translates into the key of C into I=Cmaj7, III=Em, IV=Fmaj7, as I said above. For your song, play one measure on I, transition to one measure on IV, but put in a III before the IV. (Play around with the beats to get it right.)

If the pitch is not right for your voice, translate above into any other key the same way...choose the first note of the scale, construct the *do*, *re*, *me*, *fa*, *so*, *la*, *te*, *do* notes starting there, and construct the I,III,IV chords in that scale by taking every other note starting at the I,III,IV notes of the scale. That is, I=*do-me-so-te*, III=*me-so-te-re*, IV=*fa-la-do-me*...the same notes of the *scale*, but different scales use different notes on the piano. Thus finding these notes on the piano in keys other than C (all white notes) is not so easy unless you know the scales by heart, so pianists work a long time on playing the twelve scales.

Note that in this song she improvises on the piano around this chord progression I-III-IV. To do this, just play any note in the key of C...that is, any white note...and it will sound ok while you play the chords I,III,IV below this. As you play around, you will find that some notes are better in different places, and you pick those out by ear, incorporating the melody.

Mostly, HAVE FUN WITH IT!

Ask for more, and I'll tell you more....this is the basic theory of the piano, and of improvisation!!!!!

XOXOXO

Dad.

———-Go to next page for Lesson 2———-

2 Second Lesson:

Hi Annie: Glad you asked! Here is *the rest of the story:*

Recall I told you last time that each key has a scale:

$$do, re, me, fa, so, la, te, do;$$

that is, seven different notes (second *do* is an octave above the first *do*). We label these:

do=I, re=II, me=III, fa=IV, so=V, la=VI, te=VII, do=I

This works in ANY KEY! That is great because there are lots of keys, (12 of them), and this keeps track of them all at once, with only seven labels, I-VII.

Recall also that the IV-Chord in a scale (i.e., the *fourth diatonic seventh chord*) is obtained by taking every other note in the scale, starting with the IV'th note of the scale. (Always four notes in each chord!) This works for the I-Chord, II-Chord,...,VII-Chord as well. For example, the IV-Chord of the C-scale is FACE, which is an FMaj7 chord.

The I-Chord, ..., VII-Chord of a scale are called the DIATONIC SEVENTH CHORDS, and each one uses four notes, every other note of the scale starting at the I...VII note, as the name calls for. The four notes of each chord are named the *first*, *third*, *fifth* and *seventh* note of that chord. In fact, the KEY of F is nothing more that just the F scale, together with the seven diatonic seventh chords of that scale.

That leaves the final question: What kind of chord is the I-Chord, II-Chord, ... VII-Chord in a scale? The great thing is

that, eg, the IV-Chord in any scale is always the same kind of chord, but it uses different notes. This is true for all of them, I-Chord to VII-Chord. For example, the IV-Chord in the key of G uses CEGB, and is a CMaj7....same kind of chord as the IV-Chord of the key of C, but using different notes. The point is that the SPACING between the four notes of each diatonic 7th chord is the same in EVERY KEY—because they are based on every other note of *do-re-me-fa-so-la-te-do*, and the spaces between the notes of the scale are the *same* in every key.

Conclude: the spacing between the four notes of a I-Chord...VII-Chord is the same for every one of the twelve scales.

So how do you name the spacing between the four notes of a diatonic seventh chord? First the answer:

I-Chord ALWAYS has the spacings of a Maj7 chord.

II-Chord ALWAYS has the spacings of a Min7 chord.

III-Chord ALWAYS has the spacings of a Min7 chord.

IV-Chord AWAYS has the spacings of a Maj7 chord.

V-Chord ALWAYS has the spacings of a Dom7 chord.**

VI-Chord ALWAYS has the spacings of a Min7 chord.

VII-Chord ALWAYS has the spacings of a Dim7 chord.**[1]

Remarkable: There are only FOUR kinds of CHORDS!!!

**NOTE: The Dom7 and Dim7, that is, the V and VII chords, only appear once in each scale, so these are VERY SPECIAL...you

[1]Note that a Dim7 chord is sometimes called a $\frac{1}{2}$-Diminished seventh chord, or a *Seventh Flat Fifth* chord, to distinguish it from a Diminished chord which has equal minor third spacing between the notes, see below.

always know what key you are in when you play one of these! Said differently, a given Maj7 chord appears in two different keys, in one key it is a I-Chord, and there is a second (related!) key in which the same Maj7 chord appears as a IV-Chord. Each Min7 chord appears in three different (related!) keys, in one as a II-Chord, in another as a III-Chord and a third a s a VI-Chord. One way to make things "interesting" and "change keys" in a chord progression, is to "enter" a given Maj7 chord in the key where it is the I-Chord, (things usually resolve to the I-Chord), but then "leave" the chord in the key where it is the IV-Chord, etc. Similarly for II,III and VI chords. This is one way of changing keys in a smooth way during a chord progression.

So what does Maj7, Min7, Dom7, Dim7 mean? Note that the II, III and VI are Min7 chords, (THREE OF THEM), and the I and IV are Maj7 chords, (TWO OF THEM). And the V and VII, Dom7 and Dim7, each appear only once.

Note that your song is using the two Maj7 chords in the key of G, namely, I and IV. (These chords like to follow each other because IV is *down a fifth* from I. For some reason, the natural flow of a song is to *drop by fifths*. You create tension when your chord progression goes somewhere other than to the chord down a fifth! This is clarified below.)

The type of chord, Maj7, Min7, Dom7, Dim7, is determined by the spacing between the four notes of the chord. This is how it works:

The first three notes of a diatonic seventh chord, the *first*, *third* and *fifth* notes of the chord, are called the TRIAD of the chord, and the top note is called the SEVENTH note of the chord.

Now, the interval or spacing between two consecutive notes in a four note diatonic seventh chord is called a THIRD. It consists of THREE half steps[2] or FOUR half steps, depending on whether the two notes cross one of the two places in the scale that are only a half step apart. If there are three half steps between two consecutive notes of a scale we call it a MINOR THIRD, and if there are four half steps we call it a MAJOR THIRD.

Note: The intervals between the notes

$$do - re - me - fa - so - la - te - do$$

starting between $I = do$ and $II = re$, $ALWAYS$ goes:

$$whole - whole - half - whole - whole - whole - half.$$

So there is a half step between the III and IV and between VII and I, all the rest of the steps in the scale are whole steps. A whole step is two chromatic steps, a half step is one chromatic step.

Conclude: Every diatonic seventh chord consists of four notes, each either a minor third or a Major third apart. Four notes determine three spacings, each a Major or minor third, and the type of chord, Min7, Maj7, Dom7 or Dim7 is determined by whether these three spacings are minor or Major.

[2] A *half step* is just the smallest step between notes on the piano, the step between two consecutive chromatic notes–always black to white or white to black except between EF and BC where the half step goes white to white because the black note is missing at these places on the piano. (If we put those two missing black notes in, the key of C wouldn't be all white notes anymore!) A *whole step* is two chromatic half steps.

Here is how we name them: The first three notes of a diatonic seventh chord determine two spacings. If the spacing is a Major third followed by a Minor third, then we call it a MAJOR TRIAD. If it is a minor third followed by a Major third, we call it a MINOR TRIAD. And if it is a minor third followed by as minor third it is called a DIMINISHED triad. (The Major third followed by a Major third never happens in a diatonic chord.)

Summary:

I-Chord: First three notes are a Major third (**M**) followed by a minor third (**m**), so it is a Major triad. (A so-called **Mm**-triad)

II-Chord: First three notes are a minor third followed by a Major third, so it is a minor triad. (**mM**-triad)

III-Chord: First three notes are a minor third followed by a Major third, so it is a minor triad. (**mM**-triad)

IV-Chord: First three notes are a Major third followed by a minor third, so it is a Major triad. (**Mm**-triad)

V-Chord: First three notes are a Major third followed by a minor third, so it is a Major triad. (**Mm**-triad)

VI-Chord: First three notes are a minor third followed by a Major third, so it is a minor triad. (**mM**-triad)

VII-Chord: First three notes are a minor third followed by a minor third, so it is a Diminished triad. (**mm**-triad.)

The first three notes of a diatonic seventh chord are called the first, third and fifth notes of the chord. These determine the triad, and whether it is Maj, Min or Dim. The fourth note is

called the seventh note of the chord. Thus, the I, IV and V are MAJOR (**Mm**)-triads. The II, III and VI are minor (**mM**)-triads, and the VII is a Diminished (**mm**)-triad.
Here are the final rules for the intervals between the fifth and the seventh notes of a diatonic seventh chord:

If the triad is a MAJOR TRIAD, (Major third followed by minor third), and the interval between the fifth and the seventh is a MAJOR third, then we call the chord a Maj7 chord. Conclude: A Maj7 chord is ALWAYS a Major third followed by a minor third followed by a Major Third. (Maj7 is a **MmM**-Chord)

If the triad is a MAJOR TRIAD, (Major third followed by minor third), and the interval between the fifth and the seventh is a minor third, then we call the chord a Dom7 chord, or just a 7th chord, like C7. Conclude: A Dom7 chord is ALWAYS a Major third followed by a minor third followed by a minor Third. (Dom7 is a **Mmm**-Chord)

If the triad is a MINOR TRIAD, (minor third followed by Major third), then in a diatonic chord, the interval between the fifth and the seventh is always a MINOR third. Conclude: A Min7 chord is ALWAYS a minor third followed by a Major third followed by a minor third. (Min7 is a **mMm**-Chord.)

If the triad is a DIMINISHED TRIAD, (minor third followed by minor third), and the chord is diatonic, then the interval between the fifth and the seventh is always a Major third. Conclude: A Dim7 chord is ALWAYS a minor third followed by a minor third followed by a Major Third. (Dim7 is a **mmM**-Chord.)[3]

[3]Sometimes the Dim7 is called a half-diminished 7, or an A7♭5 chord, and Dim (no 7)

Summary:

I-Chord=Maj7=**MmM**

II-Chord=Min7=**mMm**

III-Chord=Min7=**mMm**

IV-Chord=Maj7=**MmM**

V-Chord=Dom7 (or just 7th)=**Mmm**

VI-Chord=Min7=**mMm**

VII-Chord=Dim7=**mmM**

Conclude: We have achieved our starting goal: There are 12 keys, each with seven different diatonic seventh chords, making 84 chords to keep track of, but we now see that, altogether, they come in only FOUR varieties:

Maj7=**MmM**; Min7=**mMm**; Dom7=**Mmm**; Dim7=**mmM**.

Your left hand can learn to recognize four chords=four spacings in each key!

Dropping by Fifths

Finally, for some reason (one is proposed below), the natural chord flow of a song is to *drop by fifths*. That is, a diatonic chord wants to progress to the diatonic chord based on the note an **mM**=**Mm** interval below it. (Since all the chords except one, the VII chord, are based on either an **mM** or **Mm** triad, this will *always* land you back in the same key, except if you try

names a *Diminished* **mmm**-Chord.

to drop a fifth **mM** from the IV chord, which is only **mm** above the VII chord. That is, the VII-Chord is an **mm** triad, so its a half step short of where **Mm** lands you when you drop a fifth from IV.) Dropping by fifths creates a natural flow ordering of the diatonic chords in a key as follows:

$$\text{VII}\rightarrow\text{III}\rightarrow\text{VI}\rightarrow\text{II}\rightarrow\text{V}\rightarrow\text{I}\rightarrow\text{IV}$$

The IV chord is special because if you try to drop a **mM** interval below the IV chord, you land on the note a half step *below* VII, (because VII uses an **mm**-triad, one half step short!). That is, the fourth chord is the only one that goes out of the key when you try to drop a fifth.

Conclude: you cannot stay within a key forever dropping by fifths. The *end of the line* is the IV-chord.

This establishes another natural way that key changes enter chord progressions–when you drop a fifth from IV you are in a new key. In fact, the natural 7 note scale *do-re-me-fa-so-la-te-do* can be defined at the start as the longest sequence of notes (starting at VII) you can get by dropping by fifth intervals **mM**, until you come back within a half step of where you started. The reason is that **mM** consists of seven chromatic steps out of twelve, and since seven is incommensurate with twelve, only seven notes, but no more, can stay in a scale constructed in this way by dropping by fifths.

In fact, the entire twelve note scale of western music is established by the principle of *dropping by fifths*. Indeed, if you pluck a guitar string, the first overtone, the vibration associated with dividing the string in half, is the next octave up. The second overtone, the vibration associated with dividing the string into

thirds, is the fifth note of the western scale. (E.g., if the string is tuned to C, the overtone associated with the string vibrating in equal thirds is the note G, the fifth note of the western scale.) This perhaps explains why our ear tells us that the easy natural way for the music to go is to resolve down a fifth: If you start your music by plucking a C string (establishing the *tonic*), the next strongest note you hear, the *dominant* note among notes subsidiary to C, is the fifth note G. So if you play G after you play C, you've pointed to something you already hear in the C, so it "sounds right", but your ear wants to return to the note that anchored the G at the start, the tonic C. By this, all things being equal, C would resolve *down a fifth*, which is octave equivalent to *up a fourth*[4], to the IV-chord F of the C scale. The terminology is this: I is the *tonic*, the note that establishes the key; V is called the *dominant*, and is the dominant note you hear when you pluck C, among notes subsidiary to C; and IV is the called the *subdominant*, because it is the most natural note to which C can resolve. This is so engrained in our ear that we have come to expect transition to the chord down a fifth, establishing a natural flow of the music. By fighting the natural flow, your improvisation creates tension and surprises.

The principle of fifths is the principle that underlies the construction of the twelve note diatonic music scale in the first place. The principle goes like this: if you construct a musical scale by assuming whenever a note is in the scale, the note overtone associated with the fifth is also in the scale, (really its

[4]Five chromatic steps up, which is *up a fourth*, is twelve chromatic steps up=one octave above where you land if you above seven=**Mm** chromatic steps down, which is down *a fifth*. Thus down/up a fourth is octave equivalent to up/down a fifth. The interval of a fourth is one short of the interval **mm**, so it does not decompose evenly into minor and major thirds, explaining why we usually talk about fifths instead of fourths.

octave equivalent within the original octave), you find that, after taking this sequence of *fifths* back into the same octave, you will come back to the original note after 12 approximately equal frequency intervals are mapped out. The chromatic scale of 12 notes is universal because it is the simplest scale that "closes up" all the fifths....whenever a note is in the scale, so is the note up a fifth and down a fifth from it. (This is good because you always hear the G when you pluck a C string!) The proof of all this is in the twelve note chromatic scale itself: if you drop by fifths (i.e., **Mm**=seven chromatic steps), you pass through all twelve notes before you return, because seven is relatively prime relative to twelve. But it is of great interest that the intervals between the notes, while approximately equal, are not exactly equal. Johann Sebastian Bach introduced the *equal temperament* scale in 1772, defining the ratios between frequencies the same between consecutive notes, so you come back exactly after twelve *drops by fifths*. Adopted on the piano since then, it means that the true overtone fifth of every note is "almost in the scale", but not quite, creating imperfections that fool your ear, and make the music *more* interesting. For example, the piano G won't quite be the second overtone you hear when you pluck a C string! Close, but not so close you can't hear the difference!

Amplifying on this, one can argue that the seven note scale is the longest string of notes that are closed under fifths subject to the condition that there be no gaps larger than a whole step between the notes, and no note should be a half step from two different notes. That is, the seven note classical scale *do-re-me-fa-so-la-te-do* is determined by the following optimizing procedure: (1) choose the *tonic* note *do*, say $do = C$; (2) require that the dominant and subdominant of the tonic, the notes up a

fifth and down a fifth from the tonic, should be in the scale; and (3) starting with these three notes, require that whenever a note is in the scale, its dominant, the note you hear up a fifth from it when you pluck that string, is also in the scale. If you keep adding notes by this principle until you get within a half step of a note already in it, you end up with *do-re-me-fa-so-la-te-do*. Conclude: the seven note musical scale is the best you can do if you require that the notes you hear when you pluck a note in the scale should also be in the scale, subject to the condition that there be no gaps in the scale greater than a whole step, and no notes within a half step of two different notes in the scale. But ultimately you fail because the VII note will be a half step below I, and its dominant is a half step above IV (the tritone), and so not in the scale. transition to the chord down a fifth, establishing a natural flow of the music. By fighting the natural flow, your improvisation creates tension and surprises.

Thus music is a microcosm of life–the seven note scale gives you the best you can do, which is everything you need...but you can't get everything you want. Said differently, you can keep everything in the same simple key for a while, but eventually a happy life of dropping by fifths will inevitably lead you into the complications of a different key, and that to another different key, and eventually you will be led to to explore all of the keys in the world.

Of course there is much more to learn. But I strongly recommend that the basic elemental theory, the **Framework**, if you will, into which you should place your understanding of new musical discoveries that emerge as your playing of Classical Jazz Piano evolves, is outlined above. The rest is "just" about varying

things from this basic structure to sound different and interesting. Much of this involves *borrowing* chords from different keys to change where you are in a progression. For example, if you drop by a fifth from I to IV, you might play the IV chord as a Dom7 instead of a Maj7, thereby pleasing your ear enough by dropping by a fifth, but fooling it into believing at the same time it is correct to treat the new chord as a V-Chord from a different key, thereby convincing you that it is ready to resolve to the I-Chord of the new key. This way you drop by fifths but get to resolve to a new I-Chord from a different key.

A Longterm Roadmap to Improvisation

To start improvising, create chord progressions that drop by fifths, stay in the same key, and end at I. The most fundamental chord progression, the one you might start improvising around, is: I-VI-II-V-I. (I-VI starts you off, so to speak, and the natural flow down by fifths takes you back to I.) You'll hear many popular songs and classical music emerge as you play this progression, and you can try to figure out those melodies by ear on your right hand. Once you can improvise around this progression, it becomes a point of departure for improvising around most other progressions based on dropping by fifths and staying in the same key.

I would recommend starting your playing in the key of E-flat. In some sense this is the center of the piano because it contains three of the five black notes, all flat, and prepares you for the the other keys. In particular, the black notes in E-flat are so-called *blue notes* for the key of C, (*Blue* taken in the sense of the twelve bar Blues progression). You can make chord progressions that stay in the same key interesting by changing beats and playing

notes in the scale in different orderings and timings, (and a great deal of early classical music is interesting in this way), but after a while you crave the surprises and mis-directions of modern jazz. One way into this is to start improvising around the twelve bar Blues progression. (You can find this in any book.) The idea is to use the tonic, dominant and subdominant chords in a progression, but play them all as Dom7=Mmm, that is, as a V-chord. Such progressions do not lie in any one key because a V=Mmm is played in place of a I=IV=MmM in all three chords. Since each V-chord appears in only one key, it follows that the Blues employs three different keys. The Blues progression opens the door to playing interesting notes not in the same key as the progression, notes taken from the so called Blues scale. The essential Blues notes for the key of C are the black notes in the key of E-flat, together with the "tri-tone", the note that lands between IV and V, the note G-flat=F-sharp in the key of C.[5] Once you can improvise around a I-VI-II-V-I in the key of E-flat, you can transition to a Blues progression in the key of C, (which essentially uses the notes in the key of E♭ plus one note) and then you begin to hear all kinds of new Blues sounds that take you out of the key in an interesting way.

Eventually, your goal is to play the melodies you hear—at least the simplest ones— in each key. To start, practice by taking a melody you constructed for I-VI-II-V-I and playing it in each

[5]The Blues scale uses the flatted third, the flatted fifth and the flatted seventh, not the flatted fourth, so technically, the Blues scale in the key of C is the key E♭ plus the notes G♭ [the flatted fifth of the C scale], *minus* A♭ [the flatted sixth of the C scale]. However, the flatted sixth, A♭, and the un-flatted fifth G, also seem to easily fit into Blues improvisations in the key of C. So I like to think of the Blues scale for C as essentially E♭, with qualifications!

key, always moving from key to key by dropping a fifth—by which we mean the *next key* starts at the IV note of the *previous key*. (Up a fourth=down a fifth=an **mM** interval *down*.) Once you can do a I-VI-II-V-I in each key, do the same thing for a simple Blues progression in each key. Once you have mastered an instance of both in each key, (not an easy task but possible for a lifetime project!), the entire piano will emerge before you as available for unlimited improvisation.

This is a valid strategy that *will* develop.

Many other strategies—*not so much*!

Modes

A final comment on "modes". To introduce this, start with the fact that the Blues can also be played in a "minor key". For the minor Blues, just substitute Minor chords mMm for the dominant V=Mmm chords in the twelve bar Blues progression. That is, in the key of C, use Cm in place of C7 as the tonic, Fm in place of F7 as the subdominant, and Gm in place of G7 as the dominant. Then the twelve bar Blues progression resolves on the Cminor chord instead of the C7 chord. When you play this, the resolution sounds right with the minor chords, but it is a "darker", "sadder" sound than the Blues based on dominant chords. But what are we really doing, and what is the best way to understand this as simply as possible?

The best way to look at this is as follows: The minor chords Cm, Fm and Gm are just the VI, II and III minor chords in the key of E♭. We say the Cminor "key" is just the same key as E♭ except you start on the VI note (and use the VI diatonic seventh

chord) as the I chord of the minor key. We call the key Cminor the relative minor of the key E♭ major because the VI chord of the E♭ scale is Cminor. In my view, the easiest way to organize this is to just think of the key Cminor as being the same as the key E♭ except you "start" at the VI chord by simply renaming it as the I-chord, and continuing relabel the Chords

$$\begin{aligned} I \to VI &= Cmin, \\ II \to VII &= Ddim, \\ III \to I &= E\flat maj, \\ IV \to II &= Fmin, \\ V \to III &= Gmin, \\ VI \to IV &= A\flat maj, \\ VII \to V &= B\flat dom. \end{aligned}$$

That is, the key Cminor is simply the major key E♭, but you resolve to the VI-chord (which you thus relabel as the I-chord), and songs "within the key" drop by fifths through diatonic seventh chords ending at VI instead of I in the E♭ major key.

To me, it is a lot easier to NOT relabel the chords! Just keep the same names as in the major key, say E♭, and imagine you are in the key of E♭, but are resolving to the VI-chord! Note that this supports the idea that you want to learn every song first in E♭, because then when you play in the easiest key, the key of C, you have all of the minor notes, (the black keys in the key of E♭, namely, E♭, A♭ and B♭), readily available to morph a minor key sound or a Blues sound into your improvisation.

This principle carries over to every key, not just the keys E♭ and Cm. First, for any key, we say its "relative minor" key is simply the same key, starting at the VI-chord. So the I chord of the relative minor is minor third interval m down from the I-chord. Then songs resolve down a fifth from the III-chord of the original major scale, to the VI-chord.

Finally, this principle is even MORE general. You may have heard of the modes of a scale, I=Ionian, II=Dorian, III=Phrygian, IV=Lydian, V=Mixolydian, VI=Aolian & VII=Locrian. These are just the scales obtained by starting at

a different point in the major scale. Thus Aolian resolves to the VI chord, so this is just an old name for the relative minor key associated with a major key. Now each of these modes looks like a different scale because the ordering of the "wholes" and "halves" is different, e.g. the Dorian starting at "re" instead of "do", but from the point of view of improvisation, it's easy to remember if you think of them as being the same key, one of the twelve major keys you know, using the same diatonic chords, but resolving to a different place in the scale. Of course, these scales historically were viewed as different, with different sounds and scales, because you have to hear the chords differently when your target is to resolve at a different place–but your ear can remember the "difference" while your fingers remember it as the "same thing" with a different "target". In fact, as we have shown, any seven note scale maximally closed under fifths, subject to the condition that no note is allowed to be a half step from two different notes, has to be a seven note major scale under some ordering of the notes, so we know every one of these scales has to be equivalent to one of the twelve major scales. (The Blues scale doesn't meet this condition of being maximally closed under fifths!) In summary, if you know the diatonic chords in one key, you automatically know all of the modes as well.

I hope you read and learn this. I think this is the best language, and the right way to look at it, and if you learn this, you will know the basic theory of music in a nutshell!—Have fun!

XOXO

Dad