Tensions
by Mark White
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Tensions, also known as extensions, upper register triads, and various other titles regionally, are the color tones added to chords to give them modern harmonic flavor. Tensions have an air of mystique about them. They are regarded by many younger players as complicated, mystical, and knowledge unattainable, except by selling your soul to the devil! Maybe not even then! The good news is that this information is easy to understand, and you can implement it right away. You will be able to construct any type of “advanced jazz” chord without consulting the venerable Elvin Schock’s 1,675,001 chord grips book for all occasions (including mystical jazz chords for Satanic rites and Bebop applications). Of course, the other side of the coin is that you’re going to pay some dues to really get inside this stuff! I’m going to approach this from a guitarist’s application, but vibists, pianists, etc. can apply this info, too.

Let’s start out by defining what a tension is:

A TENSION IS A TONE THAT ADDS COLOR AND TENSION (DISCORD) TO A CHORD WITHOUT CONFUSING THE QUALITY OF THE CHORD.

This simply means that you embellish, make sound more modern, etc., but still recognize the chord as being major, dom 7, minor 7-5, or whatever. Probably the best way to study the use of tensions is by period. As I’m primarily a jazz player, I’m talking about periods in jazz history, and there is, of course, harmonic spillover from jazz into Pop, R&B, Soul, and other “commercial music” that you can learn a great deal from. I’m not using the term “commercial music” in a derogatory sense, remember that Jazz was the first commercial music! I just focus more on the jazz stuff because that’s where I’m coming from. Anyway, one can study periods in jazz harmony (and use of tensions) almost by decade and we’ll be focusing our attention in this lesson on jazz history between 1930 and 1960.

Tensions can be applied to harmony both vertically and horizontally. This means that on a given chord structure we can add the tensions to the rest of/ or in place of (more about this later) the basic tones that make up the chord. This is vertical thinking, the tones of the chord and any tensions are sounding simultaneously. Horizontal thinking is basically scale-oriented. A scale can be harmonized with notes of that scale (diatonic), resulting in diatonic harmonies and tensions. These create tension and relief as one moves horizontally through the harmonized scale’s harmonic structures. This might relate to an overall harmonic situation, like C-7, but can change in a flash by key of the moment dictated by new chord changes. Also one can imply other scales and harmonies by superimposition and approach structures chromatically, etc. More commonly known as comping by scale, this method of generating harmony was widely adopted by McCoy Tyner, Chick Corea, Herbie Hancock, and many others in the 1960s. This is going to be the focus of a future lesson. Our goal here is to upgrade the basic harmonies that are generated by tertian thinking (harmony built by thirds) as opposed to the quartal harmony so indiginitous to comping by scale sounds of the 1960s. To get the most out of this lesson, you should be familiar with my “Harmony Primer” and “Harmonic Plumbing” lessons available on the Godin website.

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| D-9 | G13(9) | C9#11 | D-7 |

Tensions applied vertically by chord-tertian harmony (Notice the 4th intervals in the chords)

Tensions and chord tones moving horizontally quartal comping by scale concept
You'll notice in the previous example that the vertical-tertian has quite a few 4th intervals in the chord. The addition of the tensions and the respelling of the chord has "quartal-ized" the voicing. So is it a 4th chord or a tertian chord? It's both. In the end, tertian and quartal thinking is just an orientation. The final result musically is what counts. Sometimes musical theory produces situations that can be analyzed in more than one way— but the final judge as to its relevancy is your ear.

![Music notation](image)

It's easy to see the 3rd orientation here (an augmented 4th, a diminished 4th, and a perfect 4th)

Let's now put a list together of tensions as they relate to the primary 7th chords. A word of caution first, however. I'm going to show you a sonority-based system where the tension is used on particular chords just because it sounds good. These are "common practice" usages that are drawn from the so-called "hard-Bop" period (1950s). This is a different orientation from basic chord scale theory that draws available tensions from primary diatonic scales. Some of our "sonority-based" tensions violate "function intent" rules and/or would be considered "non-diatonic" in some cases. So be forewarned, some of the tensions that we'll use here would be considered "wrong" or "unavailable" in more academic settings, at least in the more primary applications.

Without trying to get into anymore hot water with the chord-scale police, I'll add one more thought: Any note can be added to any chord if you get your desired musical effect. The listing of tensions for particular chords is the way that Wes Montgomery, Joe Pass, Red Garland, Wynton Kelly, and others might color a chord. But, if you wanted to go a little more in Thelonious Monk's direction, or if you were writing a score for a movie, you can deviate from the chart. Remember, these sounds are a place to start from. They're in the tradition and will help you get good results musically. You need to listen to players from this period to understand the history of usage. Always let your ears be the final judge. Don't be afraid to experiment!

**Tension Chart**

- Maj 7 - 9, #11, 13
- Min 7 - 9, 11, 13
- Dim 7 - b9, #9, #11, b13, #13
- 7sus4 - b9, #9, b13, #13, b10, #10

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The tension chart will give you good results in terms of colors that go well with the basic seventh chords. Notice that Maj 7₅, Maj 7₆₅, and 7₆₅₄ are not typical bop period chords. I’ve included them to round out our harmonic vocabulary. These chords really gained importance in the harmonic pallet of the sixties and seventies via the compositions of Wayne Shorter, Chick Corea, and others who modernized the jazz vocabulary. Also notice that Maj7₅₆, Maj7₆₅, Dom7 ₆₅, and Dom7 ₆₅ use rather conservative tensions on the chart. Try some of the “altered Tensions” (₉, ᵃ₉,etc) and check out the results. They may be a little too outside for some situations, but can add some more yang to your yin! Tension and release in choosing colorization is an important factor!

Okay, by now hopefully you’re trying some of these sounds out on your axe. And you notice a big problem right away.

Except for pianists, these voicings are impossible to play on the guitar!

Even pianists find them too big and clunky for most situations. So what do you do? Go back to my “Harmony Primer” lesson and check out the drop voicing material. Take any of the seventh chords and convert to drop 2 or drop 3 position. Here are some drop 2s for example:

The basic seventh chord is now in a “guitar-friendly” playable position. But alas, we’re still playing cowboy chords, you know, chords perfect for layin’ down “Dead Skunk in the Middle of the Road” but not too jazzy sounding. This is where we start having some fun! What we’ll do is pare down the big chord structures by substituting tensions for low degree chord tones. Here’s the substitution formula:

9 replaces 1
1₃ replaces 5
1₁ replaces ₃ (on minor only)

There are other subs possible, but for right now lets keep it simple by using only these three choices. These numbers are generic. This means the quality of a 9 or 1₃ can be flat, neutral, or sharp according to what the tension chart dictates for a particular chord type. One other condition for the time being. Don’t replace the low chord tone with a tension if the C.T. is in the bottom of the voicing. This is a generalism. Use your ears, and if it sounds good, use it, but these voicings tend to sound ambiguous and murky.

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With the four positions yielded by our drop 2 voicings, and the different string groups these chords are playable on, we now have a lot of options to work with. Unfortunately, not all the fingerings are going to be practical. The practicality issue narrows even more when for instance we #5 of a major 7. The 1st inversion of Maj7 #5 is hard to play. When we start substituting tensions for low chord degrees you’ll run into more fingering and practicality issues. This is O.K., there are plenty of usable structures left to work with. Let’s look at the drop 2s from the previous page and perform some integration of tensions.

The chords with the “X” are impossible to play without using open strings or are just too physically difficult to grasp. The rest of the chords are typical “grips” and are transposable to all roots. Speaking of roots, you’ll notice that many roots have been replaced with 9s. These are sometimes known as “assumed root chords” and have to be reckoned from another chord tone to transpose them properly. When most of us start learning voicings, we tend to use the root as the most visible note to transpose the closed form from one pitch to another. These “rootless chords” take a little time to get used to, but are really valuable for getting hipper sounds. Also in a group context those roots will be sounded or implied by the bass player, so they don’t necessarily have to be doubled. All the chords contain their “guide tones” (the 3rd and 7th, except for 7sus4 where the 4th replaces 3rd) which identify the chord type as Major 7, Minor 7, Min (maj7), Dim 7 or Dom7. The other chords with alterations to the fifth still fit into the preceding chord categories. The tensions themselves are sometimes confusing to name due to the octave of usage. You will notice above that what is being listed as a 13th for instance is interval-wise often just a sixth. Contemporary harmonic theory tends to use the lower designation when the tension is lower in the voicing. Guitarists often try to get the note in anywhere they can grab it but tend to think of it in terms of the higher number. The long and short of it is that 2=9, 4=11, and 6=13. The first Major example above could be designated as CMaj7 (add 6), but it could work just fine if the chord symbol on a chart called for CMaj13. Anyway, this theory stuff can get out of hand, the first order of business is to make some music. The chords above are just one example of how tensions could be added to the basic drop 2 voicing. Experiment and find more variations. Try adding one tension, then maybe two, if possible.

I would suggest now that you’ve learned the tension sub principle, to write versions of the new “tensionated chords”, relate them to the basic drop 2 and 3 voicings (check out drop 2 &4 also) you might already know, and integrate them into your playing immediately. Writing them down is extremely helpful at this stage. Because there are so many variations, it can become very difficult to keep track of the good voicings you come across. X out the poor sounding ones or those that are too difficult physically to play. When you find a good voicing you might start by transposing the shape around the fingerboard chromatically or by cycle 5 or 4. This will help your muscle memory retain the feel of the grip, and you’ll have a better chance of executing it in performance.

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Still, there are a lot of options, fingerings, and applications that make using these new structures difficult. Of course you want to listen to players like Joe Pass, Wes Montgomery, Jim Hall, Pat Martino, and the other jazz guitar giants to learn by ear their use of this vocabulary. But it also helps to analyze written/transcribed examples of these harmonies. I highly suggest Barry Galbraith’s “Guitar Comping” to get you started in the right direction.

A master teacher and guitarist, Barry transcribed some of his own comping from a session with bassist Milt Hinton and issued the book. Take one of the pieces, for instance, “Blues in F” and learn how to play it! You’ll see the tension for low degree chord tones subs at work and really understand how this stuff works. The chords are primarily drop 2s with an occasional drop 3 or triadic structure. Along with increasing your chord vocabulary, you’ll also start to apply rhythm to your chords in a great swingin’ way, get a sense of where to use the “spicier tensions”, and where to use the more basic ones. The most important thing you’ll learn is how a master guitarist like Barry chose his voicings and connected them together in performance. This speaks volumes about what works and where the tradition is coming from! (“Guitar Comping” by Barry Galbraith is available from Jamey Abersold books.)

As long as we’re talking about books, another that will help you get things together using these tertian-oriented voices is: Joe Pass Guitar Solos—Alfred Publishing. Remember that these voicings are great for Comping, Chord Solos, and Arranging. The more you expose yourself to these books, especially if you learn how to play through the pieces, the better.

Before I sign off for this lesson, I’ll leave you with a couple of examples of how to start organizing your voicings. Try starting with a simple form like the blues and write whole and half note voicings for your progression:

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Analyse these chords and see how the tensions have replaced low degree chord tones, discover the original drop 2 voicings lurking underneath, and learn how to finger the chords. You’ll notice that I’ve repeated many of the same structures—not only do they sound good, they keep the task do-able. Keep it simple, don’t bite off more than you can chew! Some more practice hints: When possible, find different fingerings for the same chord on different string groups. Try anticipating the chords by an eighth note and play the chord short and accented. Wes is a good source for this kind of “groove comp”.

Mark White’s tensions P-5
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Here's another blues, this time in F. The progression is based on Bird's tune "Blues for Alice" and the progression is more challenging. Try the same procedures we used on the last example and start writing your own versions. Notice I've mixed in some plain seventh chords and even a couple of 3-note voicings. Yin-Yang, Baby!