<u>"Lydian Chromatic Concept" Discrepancies</u>

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It has never been my aim to besmirch Mr Russell's character or hard work, it is simply my duty as a diligent person to check the facts.

Proofreading is one of my areas of expertise, and while reading through the LCC, I began taking notes. This article is the result of said notes.

As instructed, I entered into this with an open mind, hoping to find the inner truth within this concept.

Sadly, I found quite the opposite. In the interests of making the truth public, here are my findings for the record:

- In the footnote on page 3, the author states that from *"C to F* [I to IV] *is 500 cents, and from C to F#* [I to #IV] *is 600 cents. The 11th harmonic is 551 cents."*

Based on the infinitesimal difference of **one little cent** (1/100th of a semitone = 1%) the author makes the demonstrably false claim that F# [#IV] is the *"natural child of the overtone series"*!

In fact, as you'll see below, the difference is actually LESS than 0.1%.

<u>The 11th overtone of C is neither an F (perfect 4th) nor an F# (augmented 4th) as it is positioned squarely between the two.</u>

Moving away from C as our *do*, and instead using A440 (4A) as our point of reference, we have:

440Hz X 11 = 4840Hz (the 11th overtone)

Tempered 8D = 4698.64Hz (a distance of 141.36Hz away from 4840Hz)
Tempered 8D# = 4978.03Hz (a distance of 138.03Hz away from 4840Hz)

This means that tempered 8D# is only 3.333Hz closer than tempered 8D to the 11th overtone of A440.

The difference of 3.33Hz when compared to a frequency of 4840Hz is not only <u>not</u> discernible to the human ear, but represents a miniscule 0.069% difference!!!

**By using the physics of natural pythagorean tuning,
it can be proven that natural D is much closer to the 11th overtone of A
than either the natural D# OR the tempered D#:**

One can find a natural D by either calculating one perfect 5th below A, or by calculating eleven perfect 5ths above A.

Eleven perfect 5ths above A = D4757.365 (a distance of 82.635Hz away from 4840Hz)
One perfect 5th below A = D4693.333 (a distance of 146.667Hz away from 4840Hz)

The average distance of these two natural D's from the 11th overtone (4840Hz) is 114.651Hz

One can find a natural D#/Eb by either calculating six perfect 5ths below A, or by calculating six perfect 5ths above A.

Six perfect 5ths above A = D#5011.875 (a distance of 171.875Hz away from 4840Hz)
Six perfect 5ths below A = Eb4944.411 (a distance of 104.411Hz away from 4840Hz)

The average distance of these two natural D#'s from the 11^{th} overtone (4840Hz) is 138.143Hz.

This means that natural 8D is an average of 23.492Hz closer to the 11th overtone of A440 than natural 8D#.

This does <u>not</u> mean that I believe that the 11th overtone is a perfect 4th, what it means is that no matter how you cut it THE ELEVENTH OVERTONE IS NEITHER A PERFECT FOURTH NOR AN AUGMENTED FOURTH.

<u>The 13th overtone (13 is a prime number like 11), is also neither a b6 nor a maj6th</u>

The "Overtone Series Chart" example I:3 on page 2 is incorrect in this instance as well. It lists the 13th overtone as being a maj6th/13th.

When using A110 (2A) as our point of reference, its 13th overtone is 1430Hz.

Tempered 6F is 1396.91Hz (a distance of 33.09Hz away from 1430Hz)
Tempered 6F# is 1479.98Hz (a distance of 49.98Hz away from 1430Hz)

By using the same flawed criteria applied to the 11th overtone in the "Overtone Series Chart", the 13th overtone should by all rights be dubbed a **b6th** in that "approximation" chart (and NOT a maj6th).

However, THE THIRTEENTH OVERTONE IS STILL NEITHER A MINOR SIXTH NOR A MAJOR SIXTH!

<u>This also means that the chart on page 130 is incorrect.</u>

<u>Occurrence of Fourths in the Overtone Series</u>

The very first overtone that qualifies as ANY kind of a 4th (perfect or augmented) is the 21st overtone, which is *very* close to either the <u>tempered OR natural **PERFECT fourth**</u>:

21st overtone of A110 (2A) = 2310Hz
tempered 7D = 2349.32Hz (**39.32Hz** from 2310Hz)
natural 7D below A3520 = 2346.66Hz (**36.66Hz** from 2310Hz)

The 22nd overtone (the 11th overtone doubled) suffers from the same ambiguity as the 11th overtone discussed above.

The very first occurrence of any overtone which even approaches either a tempered or natural augmented 4th is the 23rd overtone.

23rd overtone of A110 (2A) = 2350Hz
tempered 7D# = 2489.02Hz (**139.02Hz** from 2350Hz)
natural 7D# six 5ths above A220 = 2505.94Hz (**155.94Hz** from 2350Hz)
natural 7Eb six 5ths below A28160 = 2472.21Hz (**122.21Hz** from 2350Hz)

Note that <u>The Perfect Fourth occurs FIRST</u> in the overtone series (<u>NOT</u> the augmented fourth)!

<u>Also note: The 21st overtone perfect fourth is much closer to being a true perfect fourth</u>
(average 37.99Hz difference vs 2310Hz = **1.644% variance**)
<u>than the 23rd overtone is to being a true augmented fourth!</u>
(average 139.05 difference vs 2350Hz = **5.917% variance**)

If only the author had taken the time to sit down with a calculator and not blindly accepted the errors presented in the ubiquitous “approximation” chart I:3 on page 2, he might have chosen to omit that flawed “Overtone Series Chart” in his attempt to justify his theories.

The Extended Alpha Cadence (V-I)

If the LCC theory is based on a “ladder” of ascending fifths emanating from a center of tonal gravity “*do*”, why specifically choose a 7 note tone row? Why not 6 notes or 8 notes or why not any number?

5 notes = CGDAE   6 notes = CGDAEB   8 notes = CGDAEBF#C#

Five or six note scales work fine too. But that 8th note (C#) presents a little problem, doesn’t it?

What law of physics would suggest that a tonal center would continue to progressively generate perfect fifths going AWAY from its central point of gravity in order to imply an augmented 4th?

Certainly not the overtone series (qv. the discussion above of the “Overtone Series Chart”).

In order for a *do* to generate an ascending ladder of fifths to somehow eventually imply an augmented 4th, the overtones themselves would have to be producing overtones.

Beginning at 0A (the lowest A on the piano keyboard) 27.5Hz, its third overtone E (the 5th) would be at a frequency 3 times that (2E: natural=82.5Hz, tempered=82.41).

3 times natural 2E (E’s 3rd overtone B) = 247.5Hz (3B “the 2nd" [tempered=246.94Hz])

3 times natural 3B (B’s 3rd overtone F#) = 742.5Hz (5F# “the 6th" [tempered=739.99Hz])

3 times natural 5F# (F#’s 3rd overtone C#) = 2227.5Hz (7C# “the 3rd" [tempered = 2217.46Hz])

3 times natural 7C# (C#’s 3rd overtone G#) = 6682.5Hz (8G# “the 7th" [tempered = 6644.88Hz])

3 times natural 8G# (G#’s 3rd overtone D#)=20047.5Hz(10D# “the augmented 4th"[tempered=19912.12Hz)

The glitch with this hypothesis of a series of overtones producing overtones (which become progressively less detectable) is that 8G# is already higher than the highest note on the piano, and the frequency of the #4 exceeds the limit of the range of human hearing.

The Major Sixth

Another problem is the major 6th degree. It does not appear in at least the first 26 overtones of the overtone series. If *do* implies a major 6th in the overtone series, it certainly does so extremely weakly.

A true major 6th does not occur in the overtone series until the 27th overtone. In addition, <u>it is preceded in the overtone series by a b6 (overtone 25)</u>.

In the LCC stack of fifths, the major 6th is the third 5th up from *do.* Which places it squarely in the middle of the stack.

We know that both the lydian and ionian (major) scales have a major 6th in them, but since weak overtones produce even weaker overtones, we are obliged to discredit the notion that *do* implies a major 6th by the generation of overtones producing overtones producing overtones. Which also automatically discredits the notion that a *do* implies a #4 by continually stacking overtones of overtones.

The question then arises: "The major 6th is not implied by the overtone series, and the major 6th is not implied by continually stacking overtone 5ths of overtone 5ths. Yet we know the major 6th exists in the both those scales. How do we account for that?"

The First Seven Overtones

Since the overtone series neither produces a 4th nor a 6th within the first 20 overtones, we can easily see that all of the strong tones implied by *do* in the overtone series can be obtained from the very first 7 overtones:

Root (*do*) = 1st, 2nd and 4th overtones
3rd = 5th overtone
5th = 3rd and 6th overtone
b7 = 7th overtone

(NB. 4ths and 6ths are conspicuously absent from the above pitch collection)

We have only the root (*do*), major 3rd, perfect 5th, and b7th.

Translated to C = C E G Bb

While the *do* does not DIRECTLY imply any kind of 4th or 6th, the tritone present in the relationship between the maj3rd (5th overtone) and b7th (7th overtone) **INDIRECTLY** implies the two notes that the tritone interval has the strongest tendency to resolve to: **<u>The Perfect 4th</u>** <u>(not the #4)</u> **<u>and The Major 6th!</u>**

C ***E* -> *<u>F</u>*** G *<u>A</u>* **<- *Bb***

The extremely strong tendency for any note (or chord) to resolve up a 4th (or down a 5th, if you prefer) is due in no small part to this tritone relationship existing within the 5th and 7th overtones of the fundamental's harmonic series.

In the article "Evolution of the Major Scale" at Jeff-Brent.com, one can easily see that the major 6th occurs in the very first level of consonance, with the footnote that the major scale (ionian) *do* is actually the third mode of the radially symmetrical scale that we call nowadays the "natural minor scale" (Aeolian).

(NB. The *do* of the aeolian is the major 6th of the ionian!)

Taking The Opposite Point Of View: That F# Somehow Implies C

While it is certainly true that any chord with an F# root has a strong tendency to resolve to some kind of a B chord, and that any chord with a B root has a tendency to resolve to some kind of E chord, etc. That circular relationship holds true no matter how many chords are in the chain, from the simplest V-I, to the ii-V-I, to the vi-ii-V-I, etc, etc, etc.

Which is to say that the progression could go simply to the next chord around the circle, or clear up to all the way around the circle through all twelve chords and finally end up where it began.

A seven-chord pure circular progression beginning on an F# can, of course, eventually arrive at some kind of C chord, but ...

A three-chord circular progression beginning on an F# will end on some kind of E chord, just as an eight-chord circular progression will eventually end up on some kind of F chord.

The fact is that these circular tendencies exist right across the board no matter how many chords there are in the circular progression.

The existence of a seven-chord circular progression, while certainly possible, is exceedingly rare in music.

It has already been proven above that a *do* does <u>not</u> imply a #4, and since the distance of an F# to C is also an interval of a #4, then F# cannot therefore directly imply a C for the same abovementioned reasons.

In addition, when using the notes in C lydian (G major), the chord built off of the F# is a half-diminished 7th.

The most common use of a half-diminished 7th is in the minor ii-V-i progression, where the F# half-diminished 7th moves up a perfect 4th to a (typically altered) B7 and then moves up another perfect 4th to finally resolve squarely on the tonic E minor. In this instance it does not carry forward into the A, D, G, C circular chords, but comes to rest on the E minor.

Taking into account the tritone inherent in the F# half-diminished chord (F#-C), that tritone's greatest tendency is to resolve directly to the G and B of the G major chord of the G major scale (G major = C lydian) and stay there. In this instance the F# half-diminished chord acts in a dominant function as a rootless D9 resolving to the tonic G chord and resting there.

Another use of the half-diminished 7th is as an Altered Minor 7th chord. The lowered/altered 5th acts as a color tone and the tritone tendencies are typically ignored.

In this instance, the F#m7b5 chord moves to some kind of B chord in exactly the same way that its unaltered counterpart (F#m7) would. It should be noted that an unaltered F#m7 chord contains a C# (which certainly does <u>not</u> imply a C).

Using the notes in the C lydian scale (G major scale), this F#m7b5 (with its altered C#) would typically move to a Bm7, then Em7, then Am7, then D7, then finally to Gmaj.

In this instance, the progression would normally be felt as resolving to the G major (a result of the immediately preceding Am7-D7 ii-V change). Moving from a Gmaj to a Cmaj would be felt as a I-IV rather than a Vmaj-Imaj progression because the Gmaj does not resolve to a Cmaj with the same strength that a V7-I (G7-Cmaj) cadence has.

<u>The Most Common and Useful Scales</u>

All of the most common and useful scales are derived naturally from radially symmetrical parallel structures and <u>not</u> via uni-directional ascending fifths (qv. "The Evolution of the Major Scale" and "Derivation of Radially Symmetrical Altered Scales" at Jeff-Brent.com).

Variance between natural tuning and tempered tuning is, of course, much less when beginning at a central point radiating outwards than starting at a bottom point and continually working upwards.

Example starting at A880 (5A) as the central point, radiating outwards by perfect fifths:

Notes	C	G	D	A	E	B	F#
Natural tuning	260.74	391.11	586.66	880.00	1320.00	1980.00	2970.00
Tempered tuning	261.63	392.00	587.33	880.00	1318.51	1975.53	2959.96
% variance	+0.34	+0.227	+0.113	0	-0.112	-0.226	-0.339

Example starting at C261.63 (4C) going upwards by perfect fifths:

Notes	C	G	D	A	E	B	F#
Natural tuning	261.63	392.45	588.67	883.00	1324.50	1986.75	2980.13
Tempered tuning	261.63	392.00	587.33	880.00	1318.51	1975.53	2959.96
% variance	0	-0.114	-0.228	-0.34	**-0.454**	**-0.568**	**-0.681**

Either the author is unaware of the laws of physics governing the evolution of the major scale, or chooses to ignore them because they don't fit into his system.

The Positioning Of The b2/#1 In The "Order Of Tonal Gravity"

- Page 14 Example II:3

According to the logic of stacking 5ths upwards, the b2/#1 should be positioned squarely between the #4 and the #5. It makes no sense that this "symmetry" of ascending 5ths should be interrupted and that the b2/#1 should appear at the very end of the order.

If these are immutable laws of physics, then these laws should hold true right across the board and not only for the first 7 degrees.

A scale containing the b2/#1 should rightly constitute the LCC's "8 tone order" (which is non-existent and instead replaced by the Lydian Augmented Scale – third mode of the melodic minor).

On pages 16, 53 and 231, this omission is noted with the defense that it is in deference to the *"evolution of western harmonies'"* main chords.

As it stands, I strongly suspect that the author chose to skip over the b2 and shove it to the end because it didn't fit well with the rest of his premises.

On page 52 the author states *"The higher the law, the fewer number of smaller subjective laws"*.

I take this to mean the properties of physics hold true all of the time without a need for "patches" to account for perceived anomalies.

In the system described in "Evolution of the Major Scale" (parts 1 and 2) at Jeff-Brent.com, there are no anomalies or glitches to fix. Just the elegant beauty of simple perfection.

Here, the b2 is introduced into the mix without a hitch, as it is the very next logical step and the next common scale tool after major modes and melodic minor scales have been derived.

Scale Comparison

LCC Scales (G.Russell)

Lydian Scale
[4th mode of Ionian Scale]

Lydian Augmented Scale
[3rd mode of Melodic Minor]

Lydian Diminished Scale
[4th mode of Harmonic Major]

Lydian Flat Seventh Scale
[4th mode of Melodic Minor]

Auxiliary Augmented Scale
[Whole-Tone Scale]

Auxiliary Diminished Scale
[Wh Diminished Scale]

Auxiliary Diminished Blues Scale
[hW Diminished Scale]

Major Scale
[Ionian Scale]
Major Flat Seventh Scale
[5th mode of Ionian Scale = Mixolydian Mode]
Major Augmented Fifth Scale
[Major Bebop Scale]
African American Blues Scale
[combined Minor Pentatonic Blues Scale w/ Dominant Bebop Scale]

Pentatonics
Major Pentatonic and Minor Pentatonic
Lydian b3
[b6th mode of Harmonic Minor]
Lydian Dim b7
[4th mode of Harmonic Minor]
9-note Semi-Chromatic mode
Pan Major +5
10-note Semi-Chromatic modes (**Radially Symmetrical** [h-h-h-W-**h**-W-h-h-h])
Pan Lydian
Pan Diminished Blues

Radially Symmetrical Scales (J.Brent)

Minor and Major Pentatonic Scales

Aeolian Mode

Ionian Mode

Double Harmonic Scale

Jazz Melodic Minor Scale

Whole-Tone Scale

Diminished Scale

Dorian Mode

Major Bebop Scale

Organizing the above LCC scales into families, yields:

Ionian Modes:
Lydian Scale
Major Scale [ionian]
Major Flat Seventh Scale [mixolydian]

Jazz Melodic Minor Modes:
Lydian Augmented Scale [3rd mode]
Lydian Flat Seventh Scale [4th mode]

Diminished Scales(s):
Auxiliary Diminished Scale [Wh]
Auxiliary Diminished Blues [hW]

Whole-Tone Scale:
Auxiliary Augmented Scale

Major Bebop Scale:
Major Augmented Fifth Scale

Harmonic Major Scale:
Lydian Diminished Scale [4th mode]

African American Blues Scale
[combined Minor Pentatonic Blues Scale w/ Dominant Bebop Scale]

Pentatonics
Major and Minor

Harmonic Minor Scale
Lydian b3 [b6th mode]
Lydian Dim b7 [4th mode]

9-note Semi-Chromatic mode
Pan Major +5

10-note Semi-Chromatic modes (Radially Symmetrical [h-h-h-W-**h-**W-h-h-h])
Pan Lydian
Pan Diminished Blues

As can be seen from the above,
The Lydian Chromatic Concept AND The Radially Symmetrical Scales System
<u>both</u> contain the following essential scales:

Pentatonic Modes
The Ionian Modes
The Jazz Melodic Minor Modes
The Diminished Scales
The Whole-Tone Scales
The Major Bebop Scale

These 6 scale families above represent the most common and useful scales for all of occidental music. <u>Every</u> practical chord possibility can be constructed from the notes found inside these scales and their modes.

The main difference between the occurrence of the above scales in either system is the manner by which they are derived.

In the "Radially Symmetrical" system, all of the above scale families can be derived in six elegant simple steps. The LCC requires a much lengthier logic to arrive at these very same results.

<u>The LCC contains four scale families which are not radially symmetrical:</u>
The "Lydian Diminished" (4th mode of Harmonic Major), "Lydian b3" and "Lydian Dim b7" (b6th and 4th mode of the Harmonic Minor), "African American Blues" (a composite scale) and the Pan Major +5 (a rare 9-note Semi-Chromatic Scale).

<u>The "Radially Symmetrical" system has one scale which does not appear in the LCC:</u>
The Double Harmonic (this is sometimes interesting to play to get an altered dominant 7th chord feel as it contains the 5, the 6th, a b7, all three of the 9ths, and to keep everybody happy there's a #4 in there too).

“Chart A” Irregularities

- In the right column of **Chart A**, under **Lydian Scale Chordmodes**, listed above the **VII** are the chord possibilities of 7b9 and 11b9.

In order for a chord to be a 7b9 it requires a major third. Constructing a chord from the 7th degree of the Lydian scale yields a m7 chord (which has a minor third in it). Perhaps this is a typo (that has been overlooked for over 50 years).

According to standard practice, an 11th chord has to contain all of the chord tones underneath it (1, 3, b7, 9). While the 11b9 chord that is listed on page 28 contains a root, a 7th and a b9, it does NOT contain a third. Consequently, this chord should be properly called a “sus7b9”.

So why isn’t the m7 chord even listed at all under VII? The phrygian (which is never mentioned in the LCC) is one of the very most useful scales to play over a minor chord built off this degree (third degree of major scale – seventh degree of lydian scale).

- In the right column of **Chart A**, under **Lydian Augmented Scale Chordmodes**, listed above the **VII** are the chord possibilities of:
    7b9, 7b9#9, 11b9.

In order for a chord to be a 7b9, 7b9#9 or 11b9 it requires a major third. Constructing a chord from the 7th degree of the Lydian Augmented scale yields a m7 or a m6 chord (both of which have a minor third in it).

And once again why aren’t the m7 and m6 chords even listed at all under VII?

- In the right column of **Chart A**, under **Lydian Diminished Scale Chordmodes**, listed above the **VI** are the chord possibilities of:
    m13b5, m11b5, m9b5 and m7b5.

However, in the explanation on page 37 are listed the following chord possibilities:

Dim Triad	(A C Eb)	
Dim Min 6	(A C Eb Gb)	[dim7]
Dim Min 7 b5	(A C Eb F# G)	[??? dim7add6 ???]
Dim Min 9 b5	(A C Eb F# G B)	[??? dim9add6 ???]

These two chord lists are not only not consistent with one another, but also the descriptive names of the chords on page 37 (excepting the “Dim Triad”) are incorrect.

- In the right column of **Chart A**, under **<u>Lydian Diminished Scale Chordmodes</u>**, listed above the **+IV** is the chord possibility "Dim tetrachord".

This is an incorrect use of the word "tetrachord". The word tetrachord is used to describe four consecutive step-wise notes. It is commonly thought of as "a half-scale". The diminished tetrachord's formula is R-h-W-h (ex: B C D Eb).

If a four-note chord is meant here, then the correct word is "tetrad" ("triad" is a 3-note chord, and "pentad" is a five-note chord).

On page 38, the chord is listed as a "m6b5", with no mention of a "diminished" anything.

- On **page 44**, under **<u>Auxiliary Augmented Mode II</u>** example III:22 are listed the following chord possibilities:

1. D9b13#11 (D F# A# C E G#) [correct]

2. D7+5+11 (D F# A# C) [**incorrect** – no #11th present]

3. D7b5+11 (D F# Ab C) [**incorrect** – to include an 11th in a chord the 9th must be present. Also incorrect because of redundancy b5 = +11] The correct symbol is D7b5.

4. D9+11 (D F# G# C E) [**incorrect** – should be called D9b5]

- In the right column of **Chart A**, under **<u>Auxiliary Diminished Scale Chordmodes</u>**, above the **II** are listed the following chord possibilities:
13b9+9b5, 7b5, 7b9, 7b9b5, 7+9+11.

At the top of page 47, the following chord possibilities are listed:
13b9#9b5,13#9, 13b9#11, 7b9+9.

While these chords are not incompatible, they are also not consistent with each other.

It should also be noted that the improper use of the word "tetrachord" (instead of the correct "tetrad") occurs again both in Chart A, under <u>Auxiliary Diminished Scale Chordmodes</u>; and also on page 45 in example III:23.

The third chord on page 47 in example III:25 is listed as D13b9#11, yet in the notation it contains the notes D F# C Eb **<u>F</u>** G# B. The correct chord symbol in this case would be D13b9**#9**#11.

- In the right column of **Chart A**, under **<u>Auxiliary Diminished Scale Chordmodes</u>**, above the **VI** are listed the following chord possibilities:

    Dim min b13+7, Dim min +7, Dim min 9+7, Dim min 11+7.

On page 47 in example III:26, the following chord possibilities are listed:

    Dim min 6, Dim min +7, Min6+5, Min6+5+7

While these chords are not actually incompatible, they are also not consistent with each other. And extremely confusing as to what notes are actually in the chords in Chart A.

- In the right column of **Chart A**, under **<u>Auxiliary Diminished Blues Scale Chordmodes</u>**, listed above the **I** are the following chord possibilities:

    Maj triad, Maj 6, Maj b7, Maj b7b9+11

On page 48 example III:27 are listed these chord possibilities:

    Maj, Maj 6th, Maj b7th, Maj b7b9+11, **Dim Maj** (dim7)

The **Dim Maj** (dim7) chord is conspicuously absent from Chart A.

- In the right column of **Chart A**, under **<u>Auxiliary Diminished Blues Scale Chordmodes</u>**, listed above the **VI** are the following chord possibilities:

    min 13th b9 nat3 +11, min triad, min 6th, min 7th, min 7b5, **min 13b5**

On page 50 example III:29 are listed these chord possibilites:

1. A Min	(A C E)	[correct]
2. A Min 6th	(A C E F#)	[correct]
3. A Min 7th	(A C E G)	[correct]
4. A Min 7th b5	(A C Eb G)	[correct]
5. A Min 13th b5	(A C Eb G **<u>Bb</u>** D F#)	[**incorrect** – should be called Am13b5**b9**]

This means that the **<u>m13b5 chord listed in Chart A is also incorrect</u>** as an Am13b5 chord would contain a nat9 (B) which does not exist within the “Auxiliary Diminished Blues Scale Chordmode” (hW dim scale).

Two-Step Thought Process vs One-Step

As with the "major scale modes and the melodic minor modes", it is exceedingly inconvenient to think of modes as being conjoined with a parent scale. This makes every decision a two-step process: "What is the parent? And what degree of the parent scale should I play now?"

It is so much quicker, easier and intuitive to simply think: "OK, I've got a chord here with a few choice 'connector' tricks I can throw in to get around my chord tones."

There are a great number of ways to approach or "connect" target chord tones, and many of them rely on principles such as:

- neighbor hinges (chromatic or diatonic – ascending or descending)
- multiple contiguous chromatics (ascending or descending)
- encirclement by thirds or larger jumps (chromatic, semi-chromatic, or diatonic)
- multiple encirclements (as used by Miles Davis in the bebop era)

The author does not take these techniques into account, and effectively posits that the best way to improvise over chords is by using the LCC scales.

Cmaj13 wants to resolve to a Cmaj13#11

Page 5 Example I:2 asserts that a Cmaj13 wants to resolve to a Cmaj13#11. To my ear that does NOT sound like any kind of resolution whatsoever.

Another way of stating the above is that a C major scale wants to resolve UP a 5th to a G major scale/C (or that an F lydian scale/C wants to resolve UP a 5th to a C lydian scale).

Why would this Cmaj13 chord need to resolve UP a 5th, when all other chords usually resolve DOWN a 5th?

Omissions

- Lack of Quartals. Quartal harmonies and tunes did not show up in jazz until the advent of "modal jazz". However, since Mr Russell claims to have invented modal jazz, it is extremely surprising that harmonic genre is not addressed. Especially since quartals play such a large part in the harmonies of so many numbers in the modal jazz genre.

- The author also neglects to take into account the powerful force of the tritone which resolves to the two defining notes of the tonic. It is precisely this tritone that gives the major scale its predominance over all other occidental tonalities. (qv. "The Evolution of the Major Scale" at Jeff-Brent.com and the discussion of the overtone series on page 5 of this article).

<u>Conclusion</u>

Inconsistencies, discrepancies and outright falsehoods such as those mentioned above make the student's job of first successfully deciphering and then subsequently assimilating this material next to impossible and much more work than should be necessary to grasp this sub-set of theoretical chord/scale musical possibilities.

If someone has trouble understanding a concept, is it the author's fault for not being able to get the point across in a succinct manner or is it the fault of the learner?

The author states on page 224, that he realized that he *"couldn't keep something so powerfully evident in nature a secret"*.

If something so "*so powerfully evident in nature*" couldn't be kept a secret, then why have only a small minority of musicians ever even heard of this book, and an even smaller number have read it (not to mention the much much smaller number of those who claim to understand it, and have ever found it useful)?

There are several reasons that the Lydian Chromatic Concept never became widely thought of as an alternate way to describe music (besides the hard-to-read proprietary language it's written in).

The main reason being, by not having it published by a major publishing house at a reasonable price point, the masses have been prevented from gaining access to the book.

But, by keeping the book out of the hands of the general public, he has also kept it out of the hands of critics and experts in the field of the physics of music, most of whom would have certainly pointed out the flaws in both the concept and also the many errors found within the book.

In the case of <u>this</u> article, something so powerfully <u>*NOT*</u> evident in nature unquestionably couldn't be kept a secret. And I'm not charging you a penny for this information.

<u>The main points that I gleaned from studying the LCC</u>

1. It's ok to play a #4

2. I can play a whole bunch of scales (the same scales that I already know) over chords (the same chords that I already know), but I have to learn to call them different names

3. A side effect of the lack of unity makes the level of physical violence more prevalent.

4. The author thinks "The Star Spangled Banner" is Lydian