The Concept

One of the more difficult things for a singer to do is to maintain dissonance when singing. Because the ear is “searching” for consonance, singing a B natural against a G minor chord can prove challenging. The tendency will be to either let that B natural morph into a Bb, or (less likely), let it slip up to a C. A well-trained singer needs a strong internal imagination of pitch in order to have the conviction to hold onto the dissonant note. Whether training your ear for sight singing, or for improvisation, learning to “hold dissonance” is a great way to improve your ear.

This book works toward a similar goal. But instead of improving your ear for pitch, the aim of this book is to improve your ear for time and rhythm. In essence, it’s a methodical way to address what I call rhythmic dissonance.

Just as your ear naturally seeks consonant resolution to pitch tensions, so too, does it seek resolution to any kind of rhythms that seem to run counter to the “grain” of the basic pulse in which you are playing.

Rhythmic dissonance is created through syncopation, that is, the displacement of beats or accents that make strong beats become weaker, and vice versa. All of the exercises in this book explore two types of syncopation: polyrhythm and polymeter.

In polyrhythm, two or more distinct beats are played simultaneously (e.g., three notes played against two). In polymeter, the beats remain constant, but the organization (subdivision) of the notes in the combined beats implies differing meters (e.g., 3/4 over 4/4).

The more distinct and the more complex polymeter and/or polyrhythm are, the more likely your tendency will be to turn the time back around in order to make your perception of where the strong beats are (based upon melodic contour) line up with the actual strong beats of the measure. The better you learn to resist this temptation, the better your sense of time, rhythm, feel and form become.

As you improve your skill in this area, not only do you become a better musician in general, but also, you expand your rhythmic imagination in such a way as to dramatically open up your possibilities as you improvise. All of your harmonic and melodic knowledge can be used in seemingly endless new ways.
Take a look at the example below:

![Musical notation](image)

In this very basic melodic pattern (secondary triads) it is the organization, or the contour, of the pitches that implies its rhythmic pulse (2/4, actually). I put in accent marks to denote this subdivision, but it’s not really necessary. Again, the contour of the melodic pattern naturally implies the accents.

Here is the same melodic pattern, but placed within eighth-note triplets:

![Musical notation](image)

Even though there is a metric modulation (from eighth-notes to eighth-not triplets) the accents will not fall on the down beats of each group of triplets. Rather, they’ll fall naturally on the contours of the melodic pattern (as the accent marks demonstrate). If you were to play this pattern with a metronome clicking on the quarter note, you’d find that your ear and perception are at slight odds as to where the clicks are in relation to the actual pulse of the melody. For this reason, you’ll be tempted to either rush or to drag the tempo as you play the rhythmic figure in an unconscious attempt to “resolve” the dissonance. This is an example of a very basic type of the rhythmic dissonance that I present in this book. This dissonance is fairly easy to maintain, as it doesn’t stray too far from the familiar. But what if this pattern were slightly modified:

![Musical notation](image)

By adding a fifth note to each pattern (returning to the starting note of each secondary triad), I’ve just implied another metric modulation (5/8), and in doing so, created more rhythmic dissonance. If you were to play this pattern with the metronome clicking on the quarter notes, you might be a bit more tempted to reinterpret the pulse, if not to actually turn the time around somewhere and struggle to stay with the metronome. (This might not be the case if you were to read it, but would for sure if you were to play it by ear.

Unless you give yourself lots of experience playing, understanding, feeling and exploring these kinds of dissonance, you’ll fundamentally limit your explorations as you improvise.
This book is about presenting these rhythmic challenges in graduating degrees, so that you can build a strong “rhythmic ear.” A clear sense of time and a rich rhythmic imagination serve as tools to embolden you as you improvise, giving you the faith that, no matter what you do, no matter what you play, you can always count on being able to land on your feet, so to speak.

The aims of this book

I’ve developed and practiced the material in this book with specific aims in mind. I offer this work:

- To fundamentally improve your sense of time.
- To give you a basic, practical and methodical introduction to polymeter and polyrhythm.
- To improve your ability to play in odd times.
- To feel odd subdivisions, such as five, seven and three, as easily as you feel four.
- To increase your fluency in less common polyrhythmic subdivisions, such as quintuplets and septuplets.
- To expand your rhythmic conception and vocabulary as you improvise.
- To significantly improve your rhythmic sight-reading.

Format

I’ve organized this book into four chapters:


**Chapter Two** explores basic polyrhythm, specifically: triplets, quintuplets and septuplets.

**Chapter Three** introduces *complex* polyrhythm by nesting even-numbered melodic patterns into odd groupings (for example four-note melodic patterns nested within triplets).

**Chapter Four** presents the ultimate challenge of playing odd-numbered melodic patterns into odd groupings (for example, five-note melodic patterns nested within septuplets.)
All of the melodic patterns are in the key of C major or C melodic minor. I shift from major to minor with regularity to add some interest. Each melodic pattern is very basic, and should seem familiar. The patterns are primarily composed of seconds and thirds, though there is the occasional fourth from time to time. I chose these simple pitch parameters in order to make reading less of an issue and to make rhythm and time the primary focus. The range of all exercises is from B just below middle C up to the C two octaves higher. Feel free to transpose any or all of the patterns as you wish, either to better suit the range of your instrument, or to add variety and interest for you. The rhythmic default for all the exercises is the eighth note (with the very occasional quarter note for the purpose of maintaining melodic form).

How to practice this material

First, it is absolutely essential that you practice every exercise in this book with a metronome. The aim is to hear, feel and understand these rhythmic dissonances relative to a basic pulse. (In fact, without a basic pulse, there isn’t really much dissonance.) At the center of this aim is to always know where the downbeat of “one” is in each measure. Always choose a tempo that allows you to play with ease and clarity.

You should use the metronome in the following ways:

- **With the click on all four beats, with an emphasis on beat one.** Start all the exercises this way.
- **With the click on beats one and three.** Stay with this on any given exercise until you feel confident that you can always anticipate beat one without turning the time around, or losing the accuracy of the melodic pattern.
- **With the click only on beat one.** This is the ultimate test. If you can do this on all the exercises in this book, you’ll have absolutely superb time.
- **With the click on beats two and four.** This is optional if you want to feel these dissonances against a swing backbeat feel. You can also practice the patterns with a drum loop. (But don’t do this until you can at least play confidently with the metronome clicking only on beats one and three.)

I strongly recommend that you follow the order of exercises in the manner with which I’ve organized them. I’ve attempted to present this subject in a logically progressive order. The exercises in Chapter One will not present much of a challenge to you, but it is still very important that you spend time with them in order to give yourself lots of experience with basic polymetric subdivision. It is this foundation that will serve you well as you move into the more complex polyrhythmic studies.
All the exercises are one to two pages in length, and I’ve conceived and composed each one to be studied in a single practice session. My idea is for you to spend ten to twenty minutes a day to build on your skills. Each exercise (with exception of what I call Primer exercises) is progressed (made more challenging) by omitting notes from the basic pattern. So for example this pattern (a seven-note group within quintuplets),

![Pattern](image1)

is made slightly more challenging by extracting the seventh note of each group of seven:

![Pattern](image2)

I go on to progress the variations of each exercise by doing this, in what I would describe as a “semi-methodical” manner. In other words, the extracted notes aren’t always moved from the end to the beginning of each melodic grouping; sometimes notes are extracted more (seemingly) randomly to either increase, or to lessen, a challenge.

Each exercise has an ascending and descending pattern. The descending pattern isn’t always simply the pattern in reverse. Sometimes I make slight variations on the inversion and/or organization of the pattern for the sake of variety and interest.

Work toward being able to play the original version of the pattern before you attempt the variations. If you struggle with a particular variation, go back to playing the unaltered original pattern to get it back into your ear.

Practice the patterns from each exercise, and/or their variations only within your ability to do so. If a particular pattern is too difficult, go back to what you can already play in order to strengthen your experience, ear and understanding. You can also look at each pattern, or variation of that pattern, as an exercise in of itself. If you work consistently this way, you’ll be able to make it to the most difficult exercises in the book with success.

Finally, practice using some of these polyrhythms and polymetric subdivisions in your improvisations. Start easy (maybe just improvising over a mode or key center) and then work your way toward playing them over a harmonic form. In the end, you’ll find that you imagine and feel music in a fundamentally freer and more expanded way. Best wishes!