

POLYRHYTHMS

Part 4

Creative directions available through modulations based on quarter note triplets. Now, *that's* a concept!

Text and examples by Norman Weinberg.

AFTER GAINING CONTROL of the polyrhythmic ideas presented earlier in this series, one of the creative directions open to you is metric modulation. If you've been a regular reader of RHYTHM, I'm sure you've seen the excellent *Taking It Out* columns by Kurt Walther. Kurt has been working with metric modulations that are based on quarter note triplets. This time, I'm going to demonstrate some modulations based on polyrhythmic ideas.

Metric modulation was clearly defined by Richard Goldman in 1957 when he stated it was "a means of going smoothly, but with complete accuracy, from one absolute metronomic speed to another, by lengthening or shortening the value of the basic note unit." Okay, Richard, sounds good. But, just what do you mean by that?

Take a look at Figure 1. Although it begins in common time, the repeating rhythmic figure of a quarter note followed by an 8th in the second measure creates the feeling of a compound meter superimposed on top. In metric terms, we're superimposing measures of 6/8 on top of common time. In polyrhythmic terms, the rhythm is based on three against two.

By the fifth bar, the modulation from common time to 6/8 is complete. Even though the speed of the 8th note remains constant, we've modulated smoothly from one speed to another by lengthening the value of the beat. In common time, the beat is defined by the speed of

the quarter note. In the compound meter of 6/8, the beat is defined by the speed of the dotted quarter note. In short, we've made the value of the beat longer by one 8th note.

One aspect that makes metric modulation unique is the fact that the performer actually "goes" or "floats" into the new tempo and the new meter. When performing polyrhythms, no matter how complex, the performer is usually thinking of an underlying pulse that is somehow related to the original meter. During a metric modulation, the performer leaves the old pulse behind and jumps in with both feet (and/or hands).

Let's take the first metric modulation and push it one step further. Figure 2 modulates from the compound meter back into 4/4 by way of the duple in the fourth measure. The notation above the staff at measure five indicates that the speed of the new quarter note will be the same as the speed of the previous dotted quarter. So are we back where we started? Well, yes and no. The meter is back in 4/4, but the speed of the quar-

ter, and therefore the speed of the beat, has slowed down.

To get a taste for how this all works, try playing Figure 3. This is a simply orchestrated (or drumestrated, if you prefer) version of the two previous modulations. Once this is comfortable, try playing it with a metronome or a drum machine repeating a simple rhythmic pattern. One of the first things you'll notice is that the "ones" of the bars won't fall in the same places.

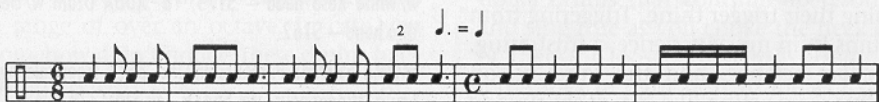
Figure 4 demonstrates what I'm talking about. Below the drum part is a single line staff that shows where the quarter notes of the original tempo and meter will fall. You can see that the four measures of 6/8 time will equal three measures of common time. This makes sense, as there are twenty-four 8ths in four bars of 6/8 and twenty-four 8ths in three bars of 4/4. But when the figure modulates back into common time at the ninth measure, four beats in the new tempo equals six beats in the original tempo. Very interesting!

Want to try another one? The first

Figure 1.



Figure 2.



modulation had the end result of slowing the quarter note down; this one is going to slightly speed up. Starting in the second measure of **Figure 5**, there is a polyrhythm of four against three. To make the modulation easier, this polyrhythm is written as a series of attacks that articulate a string of dotted 8ths. For each group of three quarter notes, there will be four attacks. At the beginning of the second line, there is an indication that the speed of the dotted 8th should now become the speed of the new quarter note. It's as if the composer is saying "Yes, I know that a dotted 8th doesn't equal a quarter, but let's pretend it does."

The end result? The speed of the new quarter note is faster than before. Instead of a quarter being divided into four 16ths, a quarter's duration would now only have the length of three 16ths (there are three 16ths to a dotted 8th).

Figure 6 shows how you might apply this type of metric modulation to the drumkit. Again, once you make the modulation, the "one" counts aren't going to fall in the same place. If you look at the single line staff in **Figure 7**, you'll see where each "one" of the original tempo falls in relation to the new tempo. In case you're wondering, the original tempo is actually moving at the speed of half-note triplets in the new tempo.

While this modulation is a little more difficult than the first, keep in mind that it is all based on the polyrhythm of four against three. In the second measure, the rhythm simply articulates four beats in the time of three. At the second line, we're really there – "floating" into a new tempo which grew out of the four against three polyrhythm.

If you've had fun playing these figures, try working with metric modulations which are based on two against three, five against two, five against four, or even nine against eight. The trick is to set up the polyrhythm in the original meter, and then actually "go there." As a suggestion, always practice metric modulations with a metronome or a drum machine. This way you'll be able to work on improving your sense of time and meter. In addition to giving your rhythmic senses a workout, these modulations are great mental gymnastics! ®

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All examples in this column were produced using Finale, courtesy of Coda Software.

Figure 3.



Figure 4.

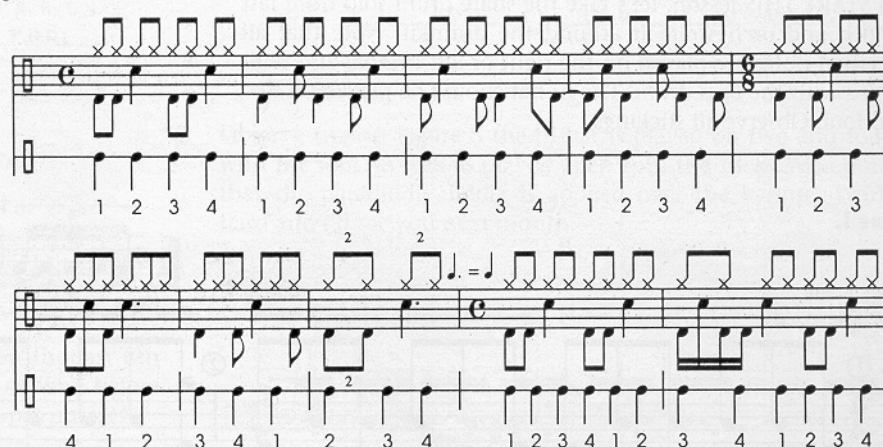


Figure 5.

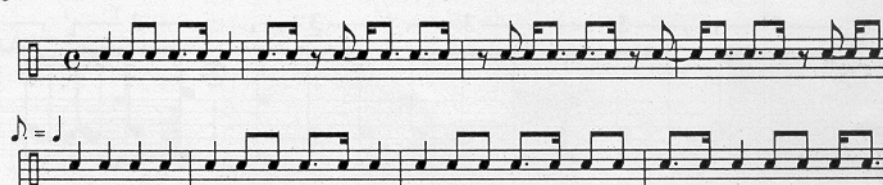


Figure 6.

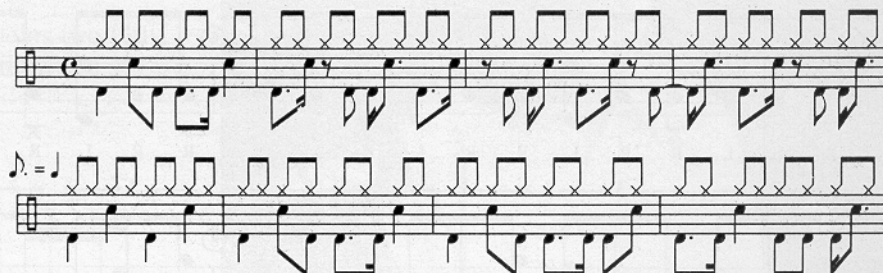


Figure 7.

