



JAZZ EDUCATION JOURNAL



Jazz Polyrhythms Ron Jones June 2006

Jazz Polyrhythms

In 2005, while a student at New York University (NYU), I went to a jam session at the Zinc Bar in Greenwich Village. The band played familiar standards such as *Without a Song* and *Invitation*. However, because the musicians incorporated such insistent polyrhythms (i.e., two rhythmic patterns occurring simultaneously) into their improvisations, I could not always determine the meter of the song being played.

Although the concept is not new (Peter Magadini has written extensively about polyrhythms in numerous books and articles¹), the use of polyrhythms seems increasingly common in contemporary jazz. Jazz artists on the NYU faculty, including Kenny Werner, Chris Potter, and Tony Moreno, brilliantly explore various meters and polyrhythms within their music. I believe that all jazz musicians can become stronger and better prepared players simply by understanding and practicing polyrhythmic concepts.

Three against two

Variations of three against two are prevalent in jazz. One common polyrhythm involves the use of dotted quarter notes within a 4/4 meter, resulting in a '2' against '3' feel.²

This rhythm is familiar, and it even occurs throughout Glenn Miller's *A String of Pearls*. But when musicians continue this rhythm for several bars, the true meter (i.e., 4/4) becomes tricky to identify. Eight dotted quarter notes, played continuously, fit into three bars of 4/4 meter, before the total pattern begins again. However, many jazz tunes are based on four-bar phrases. Extended use of the rhythm illustrated in Example 1 can easily cause one to lose his or her place within a standard tune. While practicing improvisation with a play-along track, it is a worthwhile exercise to repeat this rhythm for many bars.

[DOWNLOAD EXAMPLES 1-7 \(PDF\)](#)

Example 2 is an example of repeated dotted quarter notes over the beginning of a 12-bar blues (which, of course, is made up of three four-bar phrases). Even though the rhythm begins its pattern for the second time at bar 4, the harmony does not change until bar 5. Hence, the rhythmic and harmonic patterns are not synchronized. There are many variations of the '3' against '4' polyrhythm. In Example 3, melodic contour emphasizes every third beat (or note), thus implying a 3/4 over 4/4 meter. Other similar three-count repeating figures are illustrated in Examples 4a and 4b. In Example 5 the accented notes imply half-note triplets.

Any of the above patterns make great practice exercises, especially when played with a

metronome or play-along track. Example 6 showcases a typical exercise pattern, consisting of two contrasting groups of four eighth notes. The pattern is played as triplets in Example 7. Rhythmically the above notes are written as triplets, although melodically, they are heard in groups of four.

Other ratios and divisions

Kenny Werner has said that repeating seven eighth notes in 4/4 meter (as opposed to eight eighth notes) is analogous to two different trains moving ahead at slightly different speeds.³

[DOWNLOAD EXAMPLES 8-15a \(PDF\)](#)

In Example 8, the start of each seven-note grouping (identified by accent) begins earlier within each successive bar. Other examples of "slightly different speeds" are illustrated in Examples 9 and 10. As shown in Example 11, such rhythms may be played with a melody whose contour creates cross-rhythms. Bill Evans' fascinating tune *Five* features similar patterns, accented by the entire band.⁴ Players may become comfortable with such divisions by tapping these types of rhythms against a song in 4/4 meter.

A polyrhythm may become the basis for metric modulation. In Example 12, the bassist is asked to repeat dotted quarter notes, after which the ensemble takes that "beat" as the new quarter note.

Repeating groups in odd meters

Odd meters usually combine groups of 2 and 3 beats (e.g., depending on the situation, 5/4 meter may be conceptualized as either a 3+2 beat grouping, or a 2+3 grouping). Examples 13a, 13b, and 13c imply a 2/4 (or 4/4) over 5/4 rhythm.

[DOWNLOAD EXAMPLES 15b-18 \(PDF\)](#)

Example 14 illustrates that dotted quarter notes (on the bottom of staff) or derived beats (such as the upper rhythm) can imply a "3" feel against an odd meter. Notice how some notes are tied over the bar line. Examples 15a, 15b, 15c, and 15d illustrate a melody over the first few bars of "rhythm changes" in several meters, beginning with straight-ahead 4/4 meter. Play these phrases against a metronome or chordal accompaniment.

Another interesting rhythm that crosses odd meter bar lines is shown in Example 16. These types of triplets are exploited by drummer Brian Blade in Joshua Redman's 5/4 arrangement of *Eleanor Rigby* band.⁵ and by Brad Mehldau in his 5/4 version of *I Didn't Know What Time It Was* band.⁶ In the latter, drummer Jorge Rossy plays a "5" pattern on the ride cymbal against triplets with cross-rhythm accents on the toms!

Practice makes perfect

Pete Magadini recommends that musicians learn to feel either beat of a polyrhythm, such as feeling 2 against 3, or 3 against 2.⁷ A demonstration follows.

Set your metronome at 120, and tap Example 17's polyrhythm of 2 against 3. Tap the lower part with your right foot and the upper part with your right hand. Now set the metronome at 90 and tap Example 18's 3 against 2 polyrhythm. This is the reverse of the rhythm shown in Example 17. Your foot should be tapping the quarter notes found the bottom part. Now turn off the metronome and try switching from one example to the other (reversing foot and hand, changing tempo, and in either case feeling the quarter note as the beat) without stopping.

There are many ways to practice polyrhythms. For example, the main pulse may be tapped with a foot, while the second rhythm is counted with the voice. A drum, keyboard, or other striking surface, may also be used.⁸ Polyrhythms should be practiced against a steady beat

(such as a metronome, audio drum loop, or MIDI-created sequence). Of course, there is no substitute for learning these rhythms against the feel and unpredictability of live musicians!

Tony Moreno suggests that a band's time and rhythmic feel becomes more free and open through each player's advanced rhythmic abilities.⁹ And Magadini points out that practicing complicated rhythms doesn't confuse a musician's basic time, but rather, improves it.¹⁰ Lastly, Chris Potter believes that young players are now expected to know odd meters and polyrhythms.¹¹ So, with practice, the rest of us won't be left behind. Good luck!

Notes

¹ Peter Magadini. *Musicians' Guide to Polyrhythms, Volumes 1 & 2*. Edited by Wanda Sykes. Hollywood CA: Try Pub. Co. 1967-70.

² Miles Davis. *Dolores* and *Gingerbread Boy* from Miles Smiles. Columbia CK 48849.

³ Kenny Werner. NYU *Effortless Mastery* class. 3-23-2005, New York, NY.

⁴ Bill Evans. *Five* from *New Jazz Conceptions*. Riverside RLP 12 223.

⁵ Joshua Redman. *Eleanor Rigby* from *Timeless Tales*. Warner Bros 9 47052-2. ⁶ Brad Mehldau. *I Didn't Know What Time It Was* from *Art Of The Trio, Vol. 1*. Warner Bros 9 46260-2.

⁷ Peter Magadini. *Learning Polyrhythms, Part 2, Modern Drummer*. April 1989, p. 81.

⁸ Trevor Salloum. *Afro-Latin Polyrhythms*. Pacific MO: Mel Bay Pub. 2001, pg. 4. ⁹ Tony Moreno. Personal interview, New York, NY. April 28, 2005.

¹⁰ Magadini. Part 5 July 1989, p.49.

¹¹ Chris Potter. Personal interviews, New York, NY, February 10 and 23, 2005.



Ron Jones

Saxophonist **Ron Jones** has recorded two original jazz CDs, written music for CNN, jammed onstage with Smokey Robinson and Kirk Whalum, and performed across the U.S. including recent recitals at Texas Tech University and Eastfield College. He teaches at Brookhaven College, in his hometown of Dallas, Tex. Jones holds a bachelor's degree from the University of North Texas and a Master of Music in Jazz Performance degree from New York University. While in New York, he studied with Chris Potter, George Garzone, Lenny Pickett, and Jim McNeely. He also performed at Birdland and 55 Bar.

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Jazz Polyrhythms

Examples 1 - 7



etc.

rhythm starts over ▼ here

Example 1



Example 2



Example 3



Example 4a



Example 4b



Example 5



Example 6



Example 7

Jazz Polyrhythms

Examples 15b - 18

B[♭] B[♭]dim C- C[♭]dim D- G C- F



Example 15b

B[♭] B[♭]dim C- C[♭]dim D- G⁷ C- F⁷ B[♭]



Example 15c



Example 16



Example 17



Example 18

Jazz Polyrhythms

Examples 8 - 15a

Example 8

Example 9

Example 10

Example 11

♩ = 180 (bassist) ♩ = 120 (the ensemble takes slower tempo)

(Note this pattern reverses ▲ here then starts over ▲ in 3rd bar)

Example 12

(Note this pattern reverses ▲ here then starts over ▲ in 3rd bar)

Example 13a

Example 13b

Example 13c

Example 14

♩ = 150 B⁹ B^{dim} C- C⁹ dim D- G⁷ C- F⁷ B⁹

Example 15a