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# Rhythmic modes

Jazz and Rock are so-called metronomic music, i.e. essentially based on a defined central rhythmic flow, that of pulses, defining beat as a distance, an interval between 2 pulses.

This beat can be divided in a variable way, forming what we will call here *rhythmic modes* by analogy with melodic modes. The latter are characterized by a reference degree or melodic pole (tonic), thus polarizing the other degrees and producing their own melodic color according to their position in relation to the pole.

In the same way, in the rhythmic modes, the pulse functions as a (rhythmic) pole of attraction which polarizes the degrees dividing the beat, giving them their own rhythmic color and dynamics, defined by their position in relation to the pulse.

The 2 fundamental divisions of beats are 2 and 3, irreducible one from the other. They are called here *rhythmic cells*. The upper divisions of the beats are formed of several rhythmic cells. The divisions of the beats actually used are 2, 3, 4, 6, 8 and 9; the upper divisions becoming so complex that they lose all musical interest.

To function as a rhythmic grid (or rhythmic matrix), the beat divisions must have a great regularity: they are thus formed of a single type of rhythmic cell. We thus obtain 2 families of modes:

- ▶ Binary rhythmic modes formed by 1 to 4 binary rhythmic cells,
- ▶ Ternary rhythmic modes formed from 1 to 3 ternary rhythmic cells.

The rhythmic degrees are therefore hierarchically ordered as follows:

- ▶ pulses, attraction poles, are by definition strong degrees, attracting the other degrees,
- ▶ the 1st degrees of rhythmic cells are medium degrees, secondary attraction poles,
- ▶ the dividing degrees of cells are weak degrees, attracted by the rhythmic poles.

This hierarchy can be summarized by the following table:

	Symbol	Hierarchy	Dynamics
Degrees of rhythmic structure	S	Strong degree	Very stable
	s	Medium degree	Stable
Degree of rhythmic development	W	Weak degree	Unstable
	w	Very weak degree	Very unstable

### Rhythmic cell hierarchy

binary cell



ternary cell



Simple hierarchy with 2 levels.  
Short rhythmic cell: only one dividing degree.

More complex hierarchy with 3 levels. Long rhythmic cell : two dividing degrees.

### Construction of rhythmic modes

	1 cell	2 cells	3 cells	4 cells
Modes with binary cells				
Modes with ternary cells				

Melodic modes are a stock of potentially usable notes, on which the melodic speech will apply a selection. Similarly, rhythmic modes are a stock of potential rhythmic degrees, which may or may not be played. The following representation of rhythmic modes will be adopted here, without noteheads (potential degrees).

### Rhythmic modes table

Cells number	Modes with binary cells	Modes with ternary cells
1		
2		
3		
4		

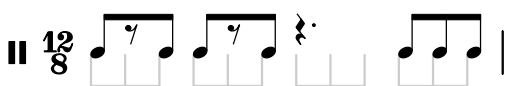
The rhythmic mode, repeated at each beat, throughout the beating of pulses, produces a rhythmic grid (or matrix) on which the rhythmic speech will be applied.

To distinguish between the rhythmic grid and the rhythmic speech, we can represent the first without notehead (potential degrees) and stem down; and the second with notehead (played degrees) and stem up.

### Rhythmic grid and rhythmic speech



Binary rhythmic mode: division of beats by 4.



Ternary rhythmic mode: division of beats by 3.