

More detailed explanation of the matrix in Figure 1 of Janata & Grafton (2003) *Nature Neuroscience*. 6(7): 682–687.

Temporal complexity:

1: atemporal – no interval timing is specified; sequences are produced as quickly as possible

2: isochrony – self-paced production at spontaneous rate

3: isochrony – pacing ISI < 2 s; synchronization tapping

4: isochrony -- >2s intervals; continuation tapping

5: polyrhythmy – self-paced spontaneous

6: polyrhythmy – simple integer ratios (1:2, 1:2:4); syncopation

7: polyrhythmy – more complex integer ratios (1:3, 2:3)

8: polyrhythmy – more complex integer ratios (1:3, 2:3)

9: polyrhythmy – non-integer ratios (1:2.3:3)

10: random time intervals – timing is specified, but the duration intervals are selected randomly from some given range and they do not constitute a set of simple-integer ratios, or a circumscribed set of non-integer ratios

Ordinal complexity:

This dimension actually consists of two dimensions: featural complexity in the sequence, e.g. number of spatial locations, and effector complexity, e.g. number of fingers required to make responses. Harrington et al (2000) speaks to the separability of effector and abstract dimensions.

Score	Feature	Effector
1	Single element, single feature dimension	Single finger
2		
3	short sequences (~4 items)	Multiple fingers (2)
4	multiple elements, single feature dimension, few alternations, repetitions	Multiple fingers (3)
5		Multiple fingers (4)
6	multiple elements, single feature dimension, multiple alternations, repetitions	Multiple fingers (>4)
7		
8	multiple elements, multiple feature locations, e.g. spatial, pitch; long sequences (~12 items)	Multiple fingers, multiple limbs
9		
10	long sequences (> 20 items)	