

## Temporal Dimension in Music

---

*di Alessandro Bertirotti*

**Keywords:** Time, Dimension, Music, Temporal

### **Abstract**

Dynamic perception of Time is the core of present-day scientific attention. In our everyday life there is an important difference between the perception of personal time and time in general. Personal time is always an inner issue, while public time is external and it governs some aspects of our everyday actions. To be a musician and play music implies an original use of Time. By playing music, a musician recreates time in four dimension, space-time in a vertical position and space-time in a horizontal one. Musicians mentally and simultaneously transpose music schemes of the score throughout a continuum temporal space. In the same way, when we listen to western and tonal music, each sound sequence is disposed: a) in linked degrees of consonant or dissonant intervals; b) in a rhythm and a metric pulsation; c) in dynamic sound sequences. All these cognitive activities must be placed and represented in our minds within a temporal continuum. Recent studies have found that listening and playing music implies the usage of cognitive structures in order to decode temporal processes, no matter how our culture or personal experience is. They are four biological cognitive structures: a universal temporal through which we listen, play and love all kinds of music.

### **References**

- Bertirotti A. (2003a). *L'uomo, il suono e la musica*. Firenze: Firenze University Press.
- Bertirotti A., Saginario M.G. (2003b). *Cenni storici sul pensiero etnologico e antropologico culturale & Elementi di Psicologia generale e sociale*. Parma: Santa Croce Editore.
- Chiarelli B. (2003). *Dalla natura alla cultura. Principi di Antropologia biologica e culturale*. vol. II. Padova: Piccin Editore.
- Chiarelli B. (1995). *Il tempo nell'evoluzione della vita sulla terra e nella storia umana*. Systema

Naturae. Il tempo nella storia dell'uomo, 2:11-21.

Drake C. Bertrand D. (2001). The Quest for Universals for Temporal Processing in Music. Biological Foundations of Music. Annales of New York Academy of Sciences, 930.

Truci G. (1965). Il tempo nella musica. Systema Naturae. Il tempo nella storia dell'uomo. 2:83-86.

[permalink: http://www.neuroscienze.net/index.asp?pid=idart&cat=3&arid=357](http://www.neuroscienze.net/index.asp?pid=idart&cat=3&arid=357)