

# Does dynamical modelling explain time consciousness?

Paavo Pylkkänen

School of Humanities and Informatics, University of Skövde, Sweden.

[paavo@ihu.his.se](mailto:paavo@ihu.his.se)

## Abstract

1. One of the fascinating features of conscious experience is its temporal structure. When I am listening to a song, I am conscious of the notes that I hear now for the first time. But I also seem to be conscious of the notes that I heard a moment ago, and through my anticipations I even seem to be conscious of the notes I have not yet heard.

2. Husserl's famous model of time consciousness has three aspects. There is the "primal impression" directed to the notes heard "now". But there is also an awareness of the "just past" ("retention") and even an awareness of the tones to come ("protention"). Husserl thought that retention and protention are perceptual processes. At the same time he realized that the idea that we would literally perceive the past is paradoxical. According to the usual view of time only the present and what is in it exists; the past no longer exists, the future does not yet exist. How could we possibly perceive that which does not exist?

3. van Gelder has proposed that time consciousness can be approached by considering a dynamical model of auditory pattern recognition. Here the state of the system at any given time models the awareness of the auditory pattern at that moment. Van Gelder suggests that this state builds the past and the future into the present, which is what Husserl required. However, van Gelder denies the idea that retention involves perception of the past.

4. I propose that even the dynamical approach fails to give an intelligible account of time consciousness. van Gelder just eliminates an essential aspect of time consciousness, namely the perception of previously experienced elements. A more adequate account can be provided within David Bohm's "implicate order" framework. This allows for a continued perception of previously heard notes, because these are understood to be "enfoldments" that actually are in the present moment. Because Bohm's approach builds upon a richer (quantum physically inspired) view of time and movement, it can better than Husserl's make sense of the idea of retention as "perception of the past".