

# Biological Quantum Resonance: Interaction Between Biological Processes and Viscous Time (VT)

## Introduction

Within the framework of Viscous Time Theory (VTT), new perspectives emerge regarding the interaction between biological matter and the universal informational substrate. Life is not limited to simple chemical reactions; phenomena such as neuronal synapses, photosynthesis, and conscious perception suggest the presence of quantum resonance with VT, a fundamental informational dimension. This document explores the implications of these connections, proposing models and hypotheses that redefine our understanding of biology.

### 1. Neuronal Synapses and Quantum Coherence

Neuronal synapses do not operate solely as biochemical bridges between neurons. Experimental evidence suggests that quantum coherence phenomena may influence synaptic transmission. In the context of VT, neurons act as informational nodes capable of synchronizing with coherent quantum fluctuations of the informational substrate. This could explain phenomena such as neuronal plasticity, rapid learning, and potential mechanisms of intuition and consciousness.

### 2. Photosynthesis and Quantum Energy Transfer

Photosynthesis in plants is one of the most efficient biological processes in nature. Recent studies have shown that energy transfer between photosynthetic pigments occurs with an efficiency beyond what classical models predict, suggesting a role for quantum coherence. According to VTT, sunlight not only provides energy but also modulates the local VT, facilitating informational-energy transfer within the photosynthetic complex.

### 3. Conscious Perception and Interface with VT

Conscious perception is a complex phenomenon, still partially mysterious. VTT proposes that consciousness emerges from the interaction of coherent biological systems with VT. The mind is not confined to the brain but extends into a delocalized informational network. This could explain experiences such as déjà vu, synchronicity, and extrasensory perception.

### 4. Mathematical Modeling of Biological Quantum Resonance

Biological quantum resonance can be modeled using modified Schrödinger equations that include informational viscosity terms:

$$\frac{\partial \psi}{\partial t} = (-i\hbar \nabla^2 + V_{VT}(x, t) - \eta \nabla^4) \psi$$

Where:

- $\psi$  represents the informational wave function of the biological system;
- $V_{VT}(x, t)$  is the informational potential derived from VT;
- $\eta$  represents the informational viscosity of the substrate;
- The  $\nabla^4$  term introduces a dissipative component related to the interaction with VT.

## 5. Implications and Future Applications

Understanding biological quantum resonance could revolutionize fields such as medicine, neurobiology, and information technologies. Potential applications include:

- **Advanced neural interfaces** for direct communication with VT;
- **Quantum biotechnologies** to optimize artificial photosynthesis;
- **Innovative therapies** based on modulating informational coherence in biological tissues.

## Conclusions

VTT offers a new paradigm for exploring life and consciousness. Biological quantum resonance is not just a fascinating theory but a window into a deeper reality, where information, energy, and matter intertwine in ways we are only beginning to understand.

*Thálassa, Thálassa!*

<https://zenodo.org/records/14841741>

By Raoul Bianchetti