



8TH INTERNATIONAL CONGRESS OF BEHAVIOURAL OPTOMETRY

Speaker:	George Sahely
Credentials:	Optometrist 20/20 Sight 'n' Style
Time/Date Scheduled:	1100 – 1230 on Sunday, 29 April
Location:	Room C2.4
Biography:	George Sahely graduated from the University of Melbourne in 1988; now holding COVD Fellowship, ACBO Fellowship, and a Postgraduate Diploma in Ocular Therapeutics. Following several years practising in New Zealand, George and wife Suzanne opened their current practice in Mornington 16 years ago, providing office based vision therapy in functional and developmental visual disorders. George has an additional penchant for Ocular pathology, Ortho-K, and his Dry Eye Clinic, whilst concurrently pondering the implications of Neuroscience and Quantum Physics on human intelligence and brain function.

Presentation Title: **Quantum Physics And Neuroscience: Validating Optometric Vision Therapy**

Abstract: In this era of evidence based practice, Behavioural Optometrists are more frequently being challenged to provide scientific backing of our philosophies and methodologies. Whilst clinical research remains the gold standard, established knowledge from other professions can be borrowed to support the underlying principles of Optometric Vision Therapy.

Neuroscience and the evolving field of neuroplasticity continue to validate the philosophies and methodology of Behavioural Optometry. Studies confirm plasticity of the adult brain and illustrate the effects that thinking patterns may have on functional and indeed structural neural pathways.

Quantum Physics and Neuroscience principals together provide foundations for the mechanisms by which behavioural therapies may directly influence and then consolidate brain function. Furthermore, Quantum theory highlights that a strong clinical emphasis on directed selective attention plays a vital role in successful therapy if neurological change is to be achieved.

A model encompassing the fields of neuroscience and quantum physics is offered to rationalise and validate Optometric Vision Therapy for accommodative/vergence disorders

1. Wilful, directed (attention driven) VT tasks forces altered functional neural pathways to be chosen and strengthened from the infinite options/realities, aiming to replace the anomalous visual response with a more appropriate one.
2. The newly emphasised visual response is consolidated through the Quantum Mechanics effects, with intense concentration/observation of a particular response tending to solidify the newly derived neurological state.
3. Repetitive non-simultaneous movements develop a functional neural framework which permits greater freedom between the accommodative /vergence systems, through cortical remapping
4. Repetition and cognitive loading lead to the automaticity we seek through Hebb's law, then through suppression of active searching cortical centres, freeing conscious attention for developing higher order skill sets.