

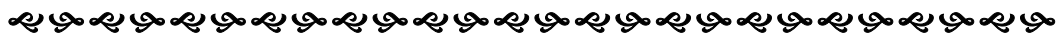
Adelaide, 29 – 30 August 2008

Neurosciences: what news?

Organised in honour of

Marcello Costa

Professor at Flinders University



Psychoanalysis and neurosciences

need

non-linear dynamic to understand each other

by Mario Pigazzini – Italian Psychoanalytic Society

Ladies and Gentleman,

Let me, first of all, thanks Daniela Judy and Ian for this invitation, but, above all Prof. Marcello Costa for his kind friendship, his unique support, his punctual critic and stimulus on my research which as it looks like, it will offer some scientific bases to psychoanalytic understanding and therapy as a natural process; from this moment I will refer to Prof Costa only with is first Italian name: Marcello, which sounds more confidential, and better describes his way of getting in touch with people. But let me now recount the adventure, which brought me, a psychoanalyst, and Marcello, a neuroscientist, to cross our paths.

When the model for my research, based on the Sierpinsky Gasket model, which I elaborated at the Center for Complexity and Non-linear Dynamic directed by Prof. Casati at Como University was ready, I made a one-year pilot study with ten patients to test the coherence and correspondence of model to the intention of the research. We, that is the mathematicians and I, obtained a lot of data and diagrams which required time to elaborate. I decided to take a sabbatical year and Prof Giulio Casati introduced me, during an international congress in the beautiful scenario of Villa Monastero in Varenna, to Prof Paul Davies.

Some days later I received an email from Marcello. We had the same interest: to go deep inside our specific field of knowledge using non-linear theories; even if psychoanalysis is till in its prehistory as a scientific method, Marcello helped me in moving it along the innovative pathways of science.

During my sabbatical year in Adelaide we spent lot of time discussing science, psychoanalysis, philosophy of science and of course neuroscience, but above all, he was always alert in stimulating my scientific attitude; it was a very difficult task if you think that an analyst is a person who every days works with metaphors, fantasies, interpretations, mental constructions, words and their meanings, that is very very far from any empirical measurement.

Even if the recent book of Norman Doidge, *The brain that changes itself*, offers us some suggestions about the capability of the psychoanalytic treatment to alter neuronal organisation, it is a common experience and solid conviction for any analysts that some structural changes occur inside the brain of our patient during the psychoanalytic treatment.

Conviction is not science of course, but it is a good motivation that spurs interest and desire to search for new methodologies; unfortunately many analysts are sceptical or refuse any kind of approach to empirical research.

Eric Kandel got a new impulse to neurosciences to make steps towards psychoanalysis and vice versa, but I believe that neurosciences are not the scientific proofs of psychoanalytic theories; they can confirm some psychoanalytic intuitions or the clinical validity of the analytic treatment as the new emerging science of neuroplasticity seems to indicate, but they can not be the scientific shadow of a new method for a *Project for a Scientific Psychology*, as was Freud's intention at the beginning of his carrier; at the end of his carrier, in 1937, he wrote that *psychology too is a natural science*.

Non-linear dynamics and the complex adaptive systems theories are, as I read in J. Maynard Smith papers and in Marcello experiences, the way by which biological sciences, and so also psychoanalysis, can find a real methodology for a new scientific project.

Marcello not only helped me to understand and assimilate the importance of methodology for psychoanalysis, he also helped me in my everyday jobs. Marcello, from 2000 until now, came many times to my town, Lecco, a nice place on the lake of Como, speaking, in different occasion, in different places and to a different audience, on some aspect of the relationship between neurosciences and psychiatry – I was working in the Outpatient Unit of the Psychiatric Department – or improving the cultural aspect of local groups with a great success.

The last one has been exceptional; with a band directed by my friend, Marcello organised, from Adelaide, a superb event on Neuroscience and Music: *Tutti insieme appassionatamente*. Every pieces of music was a clear demonstration of a specific aspect of the brain functioning that Marcello was illustrating with the use of Power Point.

Marcello, I bring with me the gratitude of many friends you have conquered in Lecco with your deep knowledge, your clear communication, your affability, your spontaneity and a real open mind.

Please, come again.

Bentornato Marcello.