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**NEURO-PSYCHO-PHYSIOLOGICAL
AND SOCIAL RESEARCH
AND INTERVENTIONS
FROM AN INTERDISCIPLINARY
POINT OF VIEW**

BOOK OF ABSTRACTS

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NEURO-PSYCHO-PHYSIOLOGICAL AND SOCIAL RESEARCH

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Almost all the study subjects developed a condition of psychophysical distress following the robbery-related assault. Further, the prevalence of PTSD may be underestimated because most subjects were examined a few months after the aggression. This is a pilot study, the first performed in Italy on this topic. A further investigation should include a wider sample of subjects, and a follow-up at least 6 months after the assault so as to include the late-onset PTSD and to monitor it.

THE "MIRROR EFFECT" IN SOUND'S FUSION TIME: THE INTEGRATION OF TWO SPECULAR SOUND FIELDS IN ONE MENTAL-VIRTUAL HOLOPHONIC SOUND FIELD. PHENOMENOLOGY AND APPLICATIONS

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In 1996 a new audio reproducing system was developed (EU Pat., US Pat., Int. Pat.), which promotes the mental integration of two specular stereophonic sound fields, emitted by two pairs of speakers sending almost identical acoustic information to the listening point, in a unified holophonic field.

This integration solves the information's paradox expressly produced by the system structure itself. As a matter of fact, taking into account the physical and acoustic dimensions only, it would be impossible to distinguish the front sound emission from the rear one. However, the listener's mind is able to reconstruct a three-dimensional space experience and thus to distinguish between front and rear sound fields.

We hypothesize that the capability to fusing and reconstructing sound information in a "virtual" holophonic field is related to a peculiar way to elaborate the space experience, which is also active during dreams. Dreams exist in a specific dimension of mental experience, that we define Primary Mental Space.

In order to verify whether, in the absence of recognizable sound structures and with closed eyes (Setting α), the mind is able to produce any structure in the primary mental space, we utilized a correlated, fractalic structured sound (1/f, Pink Noise). An autopoietic mind's property e-

merged, producing images and sounds (different from the stimulus) with a degree of realism close to the perception of reality, in a statistically relevant number of subjects (25% during a single listening session, 80% throughout six listening sessions).

The phenomenology of mind's autopoietic productions suggests an increase of information exchange between neocortical areas and older ones.

EEG's analysis allowed us to observe during listening sessions a brain's tendency to produce synchronizations in all the bands (a,b,d,g) and in all the cortical areas. Although a direct relation between cortical synchronizations and mind's autopoietic productions cannot be presently demonstrated, we hypothesize that the increased performances of both mind and body reported by most subjects (insight experiences *during* and *after* the session; physical activation *after* the listening session) could be related to an increased plasticity of neural paths induced by these general synchronizations.

The phenomenology of the autopoietic experiences should be further investigated from the perspective of the human tendency towards meaning making, independently of conscious intentionality.

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- Varela F., Maturana H. (1985). *Autopoiesi e cognizione: la realizzazione del vivente*. Venezia: Marsilio

PREVENTING SOCIAL DETERIORATION IN THE FIRST PHASES OF PSYCHOSIS. THE SIS (SOCIAL IN- TEGRATION SUPPORT) PROJECT

Galvan F., Pisano A., Cocchi A.

Azienda Ospedaliera Ospedale Niguarda Ca' Granda, PROGRAMMA 2000, Milano

The work shows the development of a preventive programme for social dysfunction in an Early Intervention Service (PROGRAMMA 2000 – I-