

# The orchestral schema of mind: harmonization and modulation of self

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## **English Abstract**

Symphonic music - when revised, proposed and practiced in integrated orchestral contexts - allows unique paths of vital importance for self exploration and the conquest of a relational style rich, personalised and modulated even in presence of fragility or severe mental, relational and social impairments.

The richness of these opportunities is still largely overlooked and unexplored both in terms of education and rehabilitation, both in terms of interdisciplinary research.

The simplicity of the musical grammar and the immediacy of the soundscapes buildable and sharable through it, contrast with the richness of its workability and with the flexibility that provides modulation and transformation.

Specific orchestral sessions permit the construction of environments where emotions, relationships and affects can be exercised and developed in an original and unique way. Self-exposure, listening, self-listening, and polyphonic dialogues can be practised in contexts that are felt at the same time, 'real' and 'virtual': the orchestral work guarantees a right 'distance' from the real word dynamic processes 'hint' and made available as 'game of forces'.

The integrated orchestra - able to revise, reconstruct, work and execute - has been tested and recognised as an affordable, safe, and unique gym for the exercise of mutual resonance, the development of the self and of the intersubjective relationships, and the development of consciousness. The concept of *resonance processing*, the concept of *musical behaviour*, and the *orchestral work* - made available regardless of previous skills and important impairments of some of its 'special musicians' - are the focus of decades of action-research at the *Esagramma* Center in Milano (in the paths of *MusicoTerapiaOrchestrale* ® and *ProvaL'Orchestra* ®).

The work done in developing and validating a unique methodology (nowadays nationally and internationally appreciated) and the path offered to more than 1000 kids and adults with important impairments: a) have led to *affirm the rehabilitative power* of the orchestral work (that makes accessible complex and symphonic contexts) and the durability of the results obtained in terms of intersubjectivity, self identification and self-esteem, limit handling, modulation of personal traits and relational skills (results that have been proved to be reinvested in different dimensions of personal life); b) have led to *important theoretical considerations* dealing with the relationship between complex orchestral practices, the development of refined musical behaviour, the development new personal and relational skills, and the access to complex mental processes.

The speech will present the protocols of observation and interpretation of the musical behaviour, the results obtained in terms of its development, their durability and their reinvestment in terms of harmonization and modulation of the self as observed in thirty years of orchestral work involving kids and adults with mental, sensorial, motoric, relational, and social impairments.

The speech will consider and discuss some possible extension of interdisciplinary scientific paradigms related to the cognitive science, the psychology of music, and the neuropsychology of music.

Protocols, results and reflections will be finally discussed in light of current lines of research in the neuropsychology of music.

## **Abstract Italiano**

La musica sinfonica - quando rielaborata, proposta e praticata in contesti orchestrali integrati - consente percorsi unici e di vitale importanza per l'esplorazione di sé e la conquista di uno stile relazionale ricco, personale e modulato anche in presenza di fragilità o di gravi compromissioni mentali, psichiche, relazionali e sociali.

La ricchezza di tali opportunità resta a tutt'oggi ampiamente trascurata e inesplorata sia sul fronte della pratica educativa e riabilitativa, sia sul fronte della ricerca interdisciplinare.

Alla semplicità della grammatica musicale e all'immediatezza dei paesaggi sonori costruibili e condivisibili grazie ad essa, si contrappone la ricchezza della sua lavorabilità e delle sequenze ottenibili in virtù del suo alto grado di componibilità. Sessioni specifiche di lavoro permettono l'articolazione nel tempo di scenari che consentono l'esercizio emotivo e affettivo di dinamiche personali e relazionali difficilmente lavorabili altrimenti: esposizioni, ascolti, autoascolti e dialoghi polifonici reali ma al tempo stesso 'virtuali' data la distanza che essi conservano dalle situazioni relazionali a cui 'alludono' in termini di 'gioco di forze'.

L'orchestra integrata - che rielabora, esegue e regala - si propone come palestra insostituibile per l'elaborazione della risonanza, lo sviluppo del Sé, la relazione intersoggettiva e lo sviluppo della coscienza. I concetti di *elaborazione della risonanza* e di *comportamento musicale* e il lavoro dell'*orchestra* - resa accessibile indipendentemente dalle pregresse competenze e dal livello di funzionamento 'cognitivo-relazionale' di alcuni tra i suoi musicisti - sono al centro di trent'anni di ricerca azione presso il Centro Esagramma nei percorsi di *MusicoTerapiaOrchestrale* ® e di *ProvaL'Orchestra* ®. Il lavoro svolto nella definizione di una metodologia unica e apprezzata a livello nazionale e internazionale ha portato: a) sul fronte riabilitativo: a identificare l'innovative potenzialità dei percorsi riabilitativi orchestrali in termini di sviluppo del Sé e dell'intersoggettività con risultati duraturi e reinvestibili nelle diverse dimensioni della vita personale e relazionale, b) sul fronte della riflessione teorica: a innovative considerazioni legate all'originalità con cui il comportamento musicale complesso, il suo sviluppo e la sua interpretazione influenzino lo sviluppo di processi raffinati e di competenze mentali complesse.

L'intervento presenterà i protocolli di osservazione e interpretazione del comportamento musicale, i risultati ottenuti in termini di sviluppo dello stesso, la durabilità e la reinvestibilità di tali risultati riscontrati in trent'anni di attività in termini di armonizzazione e modulazione del sé ferito nel tempo (a causa di fragilità sul fronte psichico e mentale, sociale e relazionale).

L'intervento presenterà inoltre alcune riflessioni legate al possibile ampliamento dei paradigmi scientifico-interdisciplinari legati alle scienze cognitive, alla psicologia e alla neuro psicologia della musica.

Protocolli, risultati e riflessioni verranno infine discussi alla luce delle più attuali linee di ricerca in ambito neuropsicologico musicale.

**Licia Sbattella** – Master Degree and PhD in Bioengineering, Master Degree in Clinical Psychology and Specialization as Psychotherapist - is Associate Professor at Politecnico di Milano. Since 1985 she has been involved in national and international research activities at Politecnico di Milano, at the University of Toronto (Canada), at the Università della Svizzera Italiana (Lugano, Switzerland), at Université Charles De Gaulle, Lille3 (Lille, France) dealing with computational linguistics, verbal and non verbal communication and interaction, assistive technology, knowledge representation and cognitive science and musicology. She published several books, articles in national and international journals and conference proceedings. She is currently involved in major projects related to: the analysis of Verbal and Nonverbal interaction, Accessible Computing, Multichannel and Multimodal Communication. Actually she is professor of "Natural Language Processing" and "Accessibility" at Politecnico di Milano, Visiting Professor of "Esthétique, pratique et théorie des arts contemporains" for the Master on 'Arts et Existences' at the Université Charles De Gaulle (Lille3, Lille, France), and lecturer of highly specialized courses in private and public organizations.

Since 2007 she is member of the Program Committee of G3ict (the Global Initiative for Inclusive ICTs: a Flagship Advocacy Initiative of the United Nations Global Alliance for ICT and Development) and works internationally with projects for the dissemination and implementation of the principles outlined by the Declaration on the Rights of Persons with Disabilities adopted by the UN in 2007 (mainly dealing with the accessibility of ICT). Policies designed and implemented with G3ict received a growing attention from national and international governmental, non-governmental, academic and industrial stakeholders.

Since 2003 she is the Delegate of the Rector of Politecnico di Milano for persons with disability. As a delegate, in 2003 she founded and since then coordinates the MultiChancePoliTeam, the group of specialists who uses innovative technologies and supports cooperative networks: - to assure the complete accessibility of courses and initiatives which involves students with disabilities, either

congenital or acquired, - to support the employment of students with disability who obtained their degree. Since 2009 she is also responsible for the psychological support of students who need it at Politecnico di Milano.

Since 1983 she is Scientific Director of Esagramma (a clinic and research centre in Milano), where she works with children and adults with cognitive, mental and relational disorders and with their families (using original and innovative methodologies based on music, multimedia technologies and psychotherapy). Founder and conductor of the Esagramma Symphonic Orchestra, the group which involves persons with special needs and professional musicians and which played at the Vatican Giubilee in 2000, at the European Parliament in Brussels in 2003, at the EurpaInTakt Festival in Dortmund in 2010, at the International Music Festival of Pecs in 2011, with prisoners in the Northern Regions of France in 2012, at the International Music Festival of Linz in 2012 and in many Italian theatres, churches and festivals), she is the author of the book *La Mente Orchestra. Elaborazione della risonanza e autismo*, Vita e Pensiero, 2006