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Musical experience: An educational entitlement in inclusive contexts. The role of teachers/educators/social workers in promoting relational health

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The title of my communication is the title of the higher education course organized at the University of Bologna, where I work as an associate professor in Musicology. The course was organized in the framework of the European projects LINK and STALWARTS, two European projects which addressed the risks of young people in Europe who are currently disadvantaged in formal education.[1] The aim of STALWARTS was to implement university modules in the 5 university partners of the project (Bergen, Bologna, Oporto, Tallinn, West of England), for teachers / educators / education operators, based on participatory action research and on the idea that musical experience is an entitlement in inclusive contexts. I will present the theoretical framework, the description of the module and the professional profile implemented at the University of Bologna.

The beneficial effect of music and the multidisciplinary approach

Current research on the beneficial effects of music points to a remarkable role in all areas of health and social care (cfr. MacDonald, 2013). The literature on music therapy and music education (cfr. Hargreaves, Miell & MacDonald, 2012), music community-based activities (cfr. Higgins, 2012), and music medicine (Spintge, 2012) invites us to adopt a multidisciplinary approach in order to facilitate a pluralistic approach to research and practice by incorporating a theoretical contribution from each discipline. The close relationship between musical experience, well-being and development has been recently highlighted by the cognitive sciences and neuroscience: studies on the origin of music (cfr. Wallin, Merker & Brown, 2001), and the development of infant musicality (cfr. Imberty, 2005), revealed a series of phenomenological and neurobiological data observations that allowed to assume, in an ontological vision of the development of human musicality, the existence of a "communicative musicality" which, according to Malloch and Trevarthen (2009), expresses the presence of musical elements in the neurobiological bases of human communication, particularly those related to the structuring of time.

[1] LINK-Learning In a New Key, Erasmus+ KA203, 2015-17, Coord. Dr Nick Clough, Novalis Trust (UK); STALWARTS-Sustaining Teachers and Learners With the Arts, Erasmus+, KA203, 2017-19, Coord. Prof. Leslie Bunt, University of the West of England.

Music and health, music therapy

A particularly relevant theme is the relationship between music and health. The discipline of music therapy has a long history of research dating back to the early 20th century (Bunt, 1994; Wheeler, 2015). In the international scene, there are different models currently approved (Wheeler, 2015) but the core of the discipline is certainly represented by the use of music in a relational sense. A recent definition of the World Federation of Music Therapy (2011) shows how music and its elements are used in a professional perspective to promote interventions in various fields (medical, educational and everyday life) and with different subjects (individuals, groups, families or communities). The goal of the interventions is to improve their quality of life, health and wellbeing and consider different aspects (physical, social, communicative, emotional, cognitive and spiritual).

Music and emotion regulation

A special factor in this field of study and practices is the relationship between emotions and music. The literature on this subject is very wide and has acquired different connotations throughout the history of Western civilization: from the "affective" qualities of the Greek modes, to the study of *affetti in musica* by Vincenzo Galilei (1581), to the recent studies in semiology, psychology, cognitive sciences, computer science, and neurobiology (cfr. Juslin & Sloboda, 2010). As Frijda (1986) emphasized, adjusting the emotional response means to act by monitoring both the action and the outcome of that action, bearing in mind that these factors interact constantly with individual dispositional factors and with social factors. The functional neuroimaging technique and studies involving patients with brain injuries show that the emotions evoked by music are able to modulate the neuronal activity in almost all the limbic and paralimbic structures (cfr. Koelsch, 2010). in the setting of music therapy, the analysis of emerged emotions must be integrated in a perspective that considers music as an element co-created by the music therapist-patient relationship (Bunt & Pavlicevic, 2001). Following the distinction proposed by Bruscia (1998), you could specify that the music therapist can use the sound-music channel as the preferred channel for development of the therapeutic relationship (music "as" therapy) and also choose to use music therapy techniques, improvisation, music listening or song composition, integrating them within a verbal therapy (music "in" therapy).

Music and Flow

The *theory of Flow* by Mihaly Csikszentmihalyi (1996) found an interesting space in the field of music, emotions and well-being. This theory offers new criteria that help to detect quantitatively and qualitatively observable indices related to creative processes and well-being. The state of flow is defined as the "optimal experience" perceived by the subject as a balance between the goals he wants to achieve and the

skills that the subject possess to achieve these objectives. Flow is characterized by the presence of high levels of a number of variables, which are: focused attention, clear and immediate feedback, clear objectives, pleasure, control of the situation, no worry of failure, self-consciousness disappeared, changing of the perception of time. According to Csikszentmihalyi's theory, other emotional states can be observed in addition to the state of flow: arousal, control, boredom, anxiety, worry, relaxation and apathy. Several studies have applied the flow theory in the field of music education, improvisation and composition. Most of them are based on interviews or written questionnaires (cfr. Nijs et al, 2012). Custodero (2005) introduced the so-called "Flow indicators", which allow to observe the state of well-being in the everyday musical experience of young children. In our previous studies, we introduced an original Flow grid, which allows both a qualitative and quantitative approach to the study of the state of flow in children during improvisation sessions with an interactive reflexive musical system (Addessi, et Al., 2015). Starting from this original grid, in the context of the LINK project, we implemented two observational grids for real-time and video-analysis of the flow experience in an inclusive teaching and/or therapeutic setting (Addessi, LINK IS 2 Final Report, 2016; Tarr & Addessi, 2017).

Reflexive interaction

The paradigm of reflexive interaction refers to the topic of *mirror* and its main characteristic is the mechanism of *repetition* and *variation*: something is repeated and varied during the interaction, by means of a continuous process of imitation and variation. The paradigm arises in the context of human-machine interaction with the so-called interactive reflexive musical systems (Pachet, 2006). We implemented the MIROR platform, a device which exploits the reflexive interaction paradigm for enhancing the children's music improvisation, composition and body creativity (Addessi et al. 2013).[2]

However, this paradigm has deep roots in Western culture and we can already find references in the myth of Echo and Narcissus (Ovid, 43 B.C.-18, *Metamorphoseon libri XV*). I suggested that the idea of mirroring that originated in ancient Western culture, now resonates with the contemporary theory of musical embodiments, the link between action and perception, and the mirror system (Addessi, 2014). In fact, studies in psychology and neurosciences have increasingly revealed the role of repetition and variation on infant development of musicality (cfr. Imberty, 2005; Papoušek, 1996; Stern, 2004). Neuroscientific studies with non-human primates suggest that the basis of the chameleon effect may be found in the mirror neuron system (Rizzolatti et al., 2002).

In general, it can be affirmed that reflexive interaction, with the qualities that characterize it, in particular the mechanisms of mirroring, repetition and variation, co-regulation, regular timing, turn-taking, etc., can represent, with and without technologies, a transversal paradigm for creativity, education, learning and the contexts of care and inclusion - complementary areas of human experience, even if

[2] MIROR-Musical Interaction Relying On Reflexion: EU Project, FP7-ICT, 2010-2013, Coord. Prof. Anna Rita Addessi, University of Bologna: www.mirorproject.eu.

with different objectives -, thanks to the fact that it captures the mechanisms that are at the base of the nature of human identity and that we find in the sphere of the arts, therapies and music therapy. In our experimental studies with children, we observed that reflexive interaction increases the children's flow experience (Addessi et al., 2015), ability to improvise (Addessi et al., 2017), motor creativity (Addessi et al., 2018), and vocal creativity (Addessi, 2019). It was also observed that the reflexive interaction can represent a versatile device for enhancing and supporting expressiveness and communication in situations of disability or in which it is important to encourage inclusion (Anagnostopoulou et al., 2012; Addessi & Bonfiglioli 2017; Ferrari & Addessi, 2017; Gurioli et al., 2019).

Musical experience: An entitlement in inclusive contexts

The participation in musical activities is considered a human right and an entitlement of people with disability (Lubet, 2011). The efficacy of music for inclusion is affirmed by the WHO (World Health Organization, 2001). When we talk about music and inclusion, it is important to consider the following aspects: musical experience can be, by nature, inclusive because of the quality of the musical communication, as I tried to describe in the previous sections. Furthermore, the scientific literature underlines the positive role of music for the development of inclusive behaviour.

However, musical experience becomes inclusive inside a model of "inclusive school" (cfr. Canevaro et al., 2011). In 2000, in the Dakar Action Framework, in Senegal, a World Declaration on Education was signed, which focuses on the right to education for all (Education for all - EFA) and identifies a strategy in school inclusion key to overcoming the exclusion and marginalization of the most vulnerable students. Guaranteeing equal opportunities and maximum development of individual potential, while respecting differences, is the challenge that the school is called to face at a national and international level.

The role of teachers/educators/social workers in promoting relational health.

In this framework, the education of teachers, educators and social workers, who act in the contexts of social and/or cognitive inclusion, is particularly relevant. What skills must a teacher possess to satisfy human musicality in inclusive contexts, to promote well-being relationships in the contexts in which he/she works? Equally important is the institutional school context in which the teachers are working.

Video-analysis

Description: *a 3 years old child (BSE) and his educator are in a nursery room and have tubes and cardboard boxes available. The educator proposes to the child a series of sound-gestures with the materials: she beats with her fingers on the cardboard box, shakes it, slams it on the floor, etc. and waits for the child's response. The child moves away or does other things. The child plays with his voice in the cardboard tube and the educator imitates it: she takes a cardboard tube and plays in*

it with her voice. The child repeats the sound, so does the educator. From this moment a musical interaction begins between the child and the educator, building up to a sort of energetic climax, characterized by close repetitions, increased intensity of the voices and gestures, concentration of the visual focus, and pleasure.

Audio-analysis
A jam session of music improvisation was carried out in one class of the Novalis Trust Institute (Bristol, UK), by myself together with the music therapists Nick Clough and Jane Tarr in the framework of LINK-Learning in A New Key project, during my visit to the Novalis Trust (2017). The session was audio-recorded.
Over the session, one researcher-musician starts a musical dialogue with one of the participants based on repetition and variation. It is possible to hear that the dialogue starts when the researcher-musician imitates the sound just played by the participant, which also answers by repeating with variations.

In these two examples, it is possible to observe that the musical communication and interaction starts when the adult imitates the child/student and that the reflexive musical interaction allows the teacher to involve the pupils in the improvisation.
It is very important to discuss the competences that the teacher should possess in order to implement meaningful musical interaction with and among the pupils (Addessi, 2005; Clough et al., 2017; Zanchi et al., 2017).

Inclusive education

Within the Europe 2020 Strategic Framework, inclusive education is the fundamental tool to overcome handicaps, disadvantages and marginalization, to guarantee equity and promote the democratic principles of social cohesion, active citizenship and intercultural dialogue.

Italian schools operate in the framework of the inclusive model.[3] The inclusive pedagogy proposes an educational and didactic approach based on respect for diversity and for the rights of equality and participation. Classes are open to children with or without disabilities and all children participate in the same activities in a way that is tailored to their individual possibilities. The role of the teacher is fundamental, as well the role of the educational institutions and system (Canevaro et al., 2011). The inclusive teacher is called to constantly reflect on his / her role and work, in the perspective of lifelong learning, and must therefore possess a series of communicative and relational, methodological and didactic, transversal and organizational competences (Sandri et al., 2017).

[3] From INTEGRATION (Law 517/1977) to INCLUSION: Law 104/92; Law 170 8/10/2010; Direttiva – 27/12/2012, *Intervention tools for students with Special Educational Needs and territorial organization for Scholastic Inclusion*; Circolare Ministeriale n. 8 – 6/3/2013, *Operational indications regarding the Directive of 27/12/2012*.

The STALWARTS University modules at the University of Bologna[4]

The STALWARTS University Modules in Italy are organised in the framework of the Post Graduate Training Programme of the University of Bologna, designed for people from the working world or who are at least launched on a professional career. It lasts 8 months (124 hours, 24 ECTS), from 30/11/2018 to 13/07/2019. I am the director and it is coordinated by the Department of Educational Science, one of the pioneers in this field world-wide, with over 30 years of teacher training, research and counselling experience, with a special curriculum in music education. The course sees the participation, among the students, of the teachers of the ICGE-Istituto Comprensivo Granarolo dell'Emilia and of the Municipality of Prato, which are partners in the STALWARTS project. The Istituto Comprensivo Granarolo dell'Emilia (ICGE), aggregates nursery, primary and secondary schools in a continuity of curriculum, and welcomes students with disabilities, special educational needs, social difficulties and non EU immigrants.

The course is aimed at those who are interested in acquiring professional skills to use music in educational contexts and inclusion, in particular, but not exclusively, teachers, socio-cultural operators, pedagogical coordinators and professionals from the world of education and training, musicians, music-therapists.

Contents and methodology

The course is based on participatory action research and several focus groups during the course involve the students in the definition of the contents and methodology. The course foresees the preparation and implementation of "small scale inquiries" to investigate and document the results of interventions in the classroom. Lectures, workshops, and activities in e-learning are included. The professors are experts in these specific topics and some of them are partners of the STALWARTS project.

The course includes two modules which the following contents:

Module 1. Workshops focused on the development of basic musical knowledge and skills: 1. musical improvisation; 2. Dalcroze methodology; 3. Interpreting music with movement, perceiving the sound dimension of the body and gestures; 4. Improvising and composing with the MIROR platform in inclusive contexts.

Module 2. This module includes lectures on professional knowledge and skills: 1. Music and inclusion. The professional profile of the teacher and educator in inclusive contexts; 2. The pedagogy of inclusion; 3. Human musicality. A new field of psychology; 4. Neuroscience and music: the effects of music and the arts on the brain. Early childhood experiences, trauma and use of music. Music and art therapy; 5. Flow and well-being with music: observation and educational strategies; 6. Designing small class inquiries using music and the arts; 7. Ethical framework and overview of the European Policy context for the relational health of children and young people in education.

[4] https://www.unibo.it/it/didattica/corsi-di-alta-formazione/2018-2019/l2019esperienza-musicale-un-diritto-educativo-nei-contesti-inclusivi-il-ruolo-degli-insegnanti-educatori-operatori-nella-promozione-del-benessere-relazionale-5586.

Professional Profile and expected learning outcomes

The professional profile implemented by the course is based on the model we developed at the University of Bologna for the music education of teachers, which describes three kinds of competences: basic, professional, and transversal (Addessi, 2005). This model has been augmented by the reflections elaborated within the LINK and STALWARTS projects (Clough, et al. 2017) and in the field of inclusive education (Canevaro et Al., 2011; Sandri, 2017).

- *Basic competences*

The student knows and is aware of her/his musical biography; interprets and analyses sound and music by listening to them; can improvise, perform, invent even simple musical sequences, with objects, body, musical instruments, technologies; uses sound and music language to interact with others; knows how to use musical and body language as a tool to create well-being relationships; possesses professional skills in music educational technologies (MIROR platform).

- *Professional competences*

The student knows: some elements related to the communicative and inclusive potential of music, according to an ontogenetic perspective of musical experience (communicative musicality, protonarrativity, affective attunement, reflexive interaction); some neuroscientific explanations on the effects of music (listening and production) on brain processes; some elements of music-therapy and of art-therapies, of their application in the educational and inclusive field and is aware of the boundaries between therapy and education; the recent research on, and knows how to use, musical experience to promote integration and inclusive processes; the fundaments of inclusive education and its elaboration in the musical field (individualization, personalization, collaborative playing); some tools for observing the flow experience in the music field and for creating experiences of well-being through music; is able to observe, create, support and guide positive and inclusive musical interactions; musical interaction with children supporting, and promoting their musicality.

- *Small class inquiry*

The student is able to plan, implement and document educational paths and / or short surveys (small scale inquiries) - case studies, based on the use of music to support well-being relationships, in the classroom or in other learning and inclusion contexts.

Conclusions

In my communication I discussed the inclusive potential of musical experience, starting from the scientific literature, theories and practices related to musical communication. I presented some examples of observation to identify and describe situations in which musical interaction acquires the value of inclusive experience. From these observations, I introduced the issue of the role and professional profile of the teacher in the contexts of inclusion. The importance of an inclusive education is

underlined by many documents that address the European community and the Italian inclusive school model. I finally introduced the university course I directed at the University of Bologna within the European project STALWARTS, which aims to educate teachers and educators to use the musical experience in contexts of inclusion. While I am writing this contribution, the course has just concluded and a new edition is scheduled for the next academic year 2019-20. This is one of the best results arising from European projects, such as the LINK and STALWARTS, in which there is a close collaboration between university and the schools, teachers, and operators who work every day in inclusive contexts.

References

Addessi, A.R. (2019). Before singing: The role of reflexivity during vocal interactions with caregivers in diaper change daily routine. In F. Russo, B. Ilari & A. Cohen (Eds.). *Advancing Interdisciplinary Research in Singing,* Volume I – *The Development of Singing*. Routledge Companion.

Addessi, A.R., Anelli, F., & Maffioli, M. (2018). La creatività motoria dei bambini in ambienti musicali "riflessivi". Uno studio sperimentale con il test Thinking Creatively in Action and Movement (TCAM) e la Laban Movement Analysis*, Danza e ricerca. Laboratorio di studi, scritture, visioni, 10*, 273–302.

Addessi, A.R., & Bonfiglioli, L. (2017a). L'«interazione riflessiva» come paradigma trasversale per la creatività, l'educazione musicale e la musicoterapia. In Elena Malaguti (Ed.), *Musicalità e pratiche inclusive*. *Il mediatore musia fra educazione e benessere* (pp. 149–174). Erikson, Trento.

Addessi, A.R., & Bonfiglioli, L. (2017b). LINK-Learning In a New Key, Impact Study 2 - Final Report. EU Project, ErasmusPlus, Agreement No 2015-1-UK01-KA201-013752, 2015–2017.

Addessi, A., Anelli, F., Benghi, D., & Friberg, A. (2017). Child-computer interaction at the beginner stage of music learning: Effects of reflexive interaction on children's musical improvisation. *Front. Psychol*. *8,* 65. doi:10.3389/fpsyg.2017.00065

Addessi, A.R., Ferrari, L., & Carugati, F. (2015). The Flow Grid: A technique for observing and measuring emotional state in children interacting with a Flow machine. *Journal of New Music Research*, *44*(2), 129–144.

Addessi, A. R. (2014). Developing a theoretical foundation for the reflexive interaction paradigm with implications for training music skill and creativity. *Psychomusicology: Music, Mind, and Brain*, *24*(3), 214–230.

Addessi, A.R., Anagnostopoulou, C., Newman, S., Olsson, B., Pachet, F., & Young, S. (2013) MIROR-Musical Interaction Relying On Reflexion, PROJECT FINAL REPORT. doi: 10.13140/RG.2.1.2162.8323.

Addessi, A.R. (2005). Le competenze musicali e professionali degli insegnanti della scuola di base. In A. Coppi (Ed.). *REMUS: studi e ricerche sulla formazione musicale. Atti e Documenti* (pp. 9–23). Morlacchi, Perugia.

Anagnostopoulou, C., Alexakis, A., & Triantafyllaki, A. (2012). A computational method for the analysis of musical improvisations by young children and psychiatric patients with no musical background. In E. Cambouropoulos, C. Tsougras, P. Mavromatis & K. Pastiadis (Eds.), *Proceedings of the ICMPC and the 8th Triennial Conference of ESCOM* (pp. 64–68). University of Thessaloniki, Greece.

Bruscia, K. (1998). *Defining Music Therapy (Second Edition)*. Barcelona Publishers, New York.

Bunt, L. (1994). *Music Therapy: An Art Beyond Words*. London: Routledge.

Bunt, L. (2012). Music therapy: A resource for creativity, health and well-being across the lifespan. In O. Odena (Ed.), *Musical Creativity: Insights from Music Education Research* (pp. 165–181). Farnham, UK: Ashgate.

Bunt, L., & Pavlicevic, M. (2001). Music and emotion: Perspectives from music therapy. In P. N. Juslin & J. Sloboda (Eds.), *Music and Emotion: Theory and Research. Series in Affective Science* (pp. 181–201). New York, NY, US: Oxford University Press,.

Canevaro, A., D Alonzo, L., Ianes, D., & Caldin, R. (2011). *L'integrazione scolastica nella percezione degli insegnanti* [*School integration in teachers' perceptions*]. Trento: Erickson.

Clough, N., Tarr, J., Stachyra, K., Addessi, A.R., & Maliszewska, K. (2017). Exploring teacher competences for relational health in schools . *Educação, Sociedade & Culturas*, *50*, 15–32.

Csikzsentmihalyi, M. (1996). *Creativity. Flow and the Psychology of Discovery and Invention.* New York: Harper Collins Edition.

Custodero, L.A. (2005). Observable indicators of flow experience: A development perspective on musical engagement in young children from infancy to school age. *Music Education Research*, *7*, 185–209.

Ferrari, L., & Addessi, A.R. (2019). The inter-subjectivity and the inter-acting body as common features between the autistic spectrum disorders and the MIROR Platform. In L. Nijs & H. Van Regenmortel (Eds.), *MERYC Book of Abstracts* (pp. 95–96). EuNet Meryc 2019.

Frijda, N.H. (2007). *The Laws of Emotion.* London: Erlbaum.

Gurioli, G., Ferrari, L., & Addessi, A.R. (2019). Storytelling with the MIROR-Composition in the Italian inclusive school. In L. Nijs & H. Van Regenmortel (Eds.), *MERYC Book of Abstracts* (pp. 34–35). EuNet Meryc 2019.

Hargreaves, D.J., Miell, D., & MacDonald, R. (Eds.) (2012). *Musical Imaginations. Multidisciplinary Perspectives on Creativity, Performance, and Perception*. Oxford: Oxford University Press.

Higgins, L. (2012). *Community Music: In Theory and in Practice*. New York: Oxford University Press.

Imberty, M. (2005). *La Musique creuse le temps*. Paris: L'Harmattan.

Juslin, P., & Sloboda, J. (2010) (Eds.). *Handbook of Music and Emotion: Theory, Research, Applications*. Oxford: Oxford University Press.

Lubet, A. (2011). *Music, disability, and society*. Philadelphia: Temple University Press.

Malloch, S., & Trevarthen, C. (Eds.) (2009). *Communicative Musicality. Exploring the Basis of Human Companionship*. Oxford: Oxford University Press.

MacDonald, R. (2013). Music, health, and well-being: A review. *International Journal of Qualitative Studies on Health and Well-Being*, *8*.

Nijs, L., Moens, B., Lesaffre, M., & Leman, M. (2012). The Music Paint Machine. *Journal of New Music Research*, *41*(1), 79–101.

Papoušek, M. (2007). Communication in early infancy: An arena of intersubjective learning. *Infant Behavior and Development*, *30*, 258–266.

Rizzolatti, G., Fadiga, L., Fogassi, L., & Gallese, V. (2002). *From mirror neurons to imitation: Facts and speculations*. In A. N. Meltzoff & W. Prinz (Eds.), *The Imitative Mind. Development, Evolution, and Brain Bases* (pp. 247–266). New York: Cambridge University Press.

Sandri, P., et al. (2018). *Hey, Insegnanti! Non lasciate da soli i bambini. Guida. IO2 Strumenti per la formazione*, http://www.hey-teachers.eu/files/2017/06/Output_1_Visual_ITA_.pdf

Stern, D. (2004). *The Present Moment in Psychotherapy and in Everyday Life*. New York: Norton.

Tarr, J., & Addessi, A.R. (2017). Preparing to observe the impact of therapeutic teaching practices. From Flow to self regulation and learning. *Educação, Sociedade & Culturas*, *50*, 95–116.

Wallin, N.L., Merker, B., & Brown, S. (2001). *The Origin of Music*. The MIT Press.

Wheeler B. L. (2015). *Music Therapy Handbook*. New York: The Guilford Press.

Zanchi, B., Bacarella, E., Bonfiglioli, L., Addessi, A.R., Colace, E., & Quadrelli, F. (2017). *INCLUSIVE PRACTICE* IN ITALIAN SCHOOLS Body and music for listening and sharing without words. *Educação, Sociedade & Culturas*, *50*, 33–52.